

LAW INTELLIGENCE.

THE TALACE COAL AND IRON COMPANY.

COURT OF BANKRUPTCY, DUBLIN.

IN RE WILLIAM SHAW (OF CORK), A BANKRUPT.—In this case, the petitioning creditor was a Mr. Howard, an English gentleman, whose counsel (Mr. Creighton) stated that he had no knowledge whatever of the Talace Company, or what the bills which he held, had been originally passed for, he would prove his client had given consideration for them. Mr. Fitzgerald, for the bankrupt, said Mr. Shaw had first been made the victim of this bubble company, and then endeavored to be made a bankrupt of; Levasse appeared to be the projector and one of the sole getters up of the company, and induced Mr. Shaw to become a shareholder to the amount of 11,000l. 10s. 6d., the bills paid for which he (Mr. Fitzgerald) contended were fraudulently obtained; Levasse was a dentist, without any farming property, and Mr. Howard knew, when taking them, that they had been fraudulently obtained; he gave nothing for them, but an assignment of certain houses in Cheltenham. Mr. Howard then underwent a searching examination, and it appeared that two of the six houses had only been in his possession a fortnight, and three had only been conveyed to him the day before he assigned them to Levasse; he did not know where to find Levasse; had sent letters to every place he thought likely to find him, without success. His Honor asked if the postponement of the case would injure the property of the bankrupt?—Mr. Fitzgerald replied, that as Mr. Shaw was in Belgium, it would, he expected, be only an adjournment of a few days, and his Honor then postponed the case as far as the appointment of an assignee; he would allow proof of the petitioning creditor's debt, subject, however, to what the bankrupt could show in the shape of objection, on his surrender to the fact.

ACCIDENTS ON RAILWAYS—RESPONSIBILITY OF COMPANIES.

COURT OF QUEEN'S BENCH—REG. B.

CARPUS V. THE BRIGHTON RAILWAY COMPANY.—This action was brought to recover compensation for injuries inflicted on the plaintiff, through the negligence of the servants. On the 2d of October, 1861, Mr. Carpus, the eminent surgeon, was proceeding to Brighton by the railway, occupying a front seat on an open carriage with two servants, his four daughters being inside another carriage; on arriving near the Hayward's Heath station, the accident occurred by the giving way of the subrail, and thus throwing the carriage off the rails; the plaintiff was most seriously injured, and confined to his bed six weeks, and, in fact, his constitution was so much broken, that he would feel its effects through life; his two servants were killed, and one of his daughters very much bruised, and the alarm, it was considered, in a great measure, produced her death some months afterwards. A great number of witnesses were examined on both sides, and the Solicitor-General having taken an objection to the wording of the declaration as to some technical points in the Railway Act of Parliament, Lord DENMAN, after reserving leave on this point to enter a nonsuit, summed up, and the jury, having retired to consider, returned a verdict for the plaintiff, damages 250l.

PROCEEDINGS OF PUBLIC COMPANIES.

REGENT'S CANAL COMPANY.

The half-yearly meeting of the shareholders of this undertaking was held at the board-room of the company's establishment at the City-road Basin, on Wednesday, the 7th inst., at which about sixty proprietors were present. J. B. DICKINSON, Esq., having taken the chair, Mr. H. GREEN moved that reports be admitted to the meeting, which was seconded by Mr. A. M. WILSON, and carried unanimously, when the reports (which were in the office) were invited into the meeting.—The SECRETARY (Mr. E. L. ROSS) read the minutes of the last meeting, and afterwards the two following reports:—

REPORT OF THE GENERAL COMMITTEE.

On again meeting the proprietors, the committee are happy to state that the company's affairs are proceeding in a satisfactory manner. The income in the past half-year, to 30th November, amounted to 418,241 tons, producing a sum of 16,511l. 10s. 6d., and from the present appearance of trade upon the canal and from the first Thames, the committee have every reason to expect that a steady increase of income will be obtained. Your committee have to state, that they have completed the purchase of the important property contiguous to the Limehouse Dock, situated in their last report. The purchase-money for the premises was 4,500l., which, with the contingent expenses, will probably make the outlay on this account amount to about 4,800l. The current resources of the company were sufficient to defray the whole of this expenditure in the first instance, without having recourse to extraordinary assistance; it is, however, plain, in accordance with the principle laid down in a former report, that this outlay having been incurred in the acquisition of permanent property, ought not to be charged against the proprietors exclusively in the year in which the purchase happened to be completed, but ought to be charged to the account of the reserved fund. The committee are desirous to take the instructions of the meeting on this point, if having been decided by a resolution of the general meeting of the 24 of June, 1860, that all payments for extraordinary services out of the reserved fund should be specially sanctioned by the proprietors. The committee have to inform the proprietors, that they have succeeded in letting all the arches and premises behind them at the Limehouse dock, and that a satisfactory arrangement of business has been made by the three extensive coal-owners and merchants by whom the docks are occupied. It has been agreed that certain sheds required for the business of two of the parties should be erected at the expense of the company, the tenants paying during their term an increased rent of 10 per cent. on the outlay. The cost of the sheds in question will be about 400l., and this outlay also, not being a matter of ordinary expenditure on the company's works, should be charged to the account of the reserved fund. The committee have great gratification in reporting, that, notwithstanding the long drought which prevailed during the summer months, the company have procured an ample supply of water throughout the winter of the past season. The new reservoir, of which we wrote at the Bristol reservoir, was commenced in August, and is now nearly completed, at a cost of about 17,000l. This important work was deemed necessary, as an additional security to the company against the recurrence of any accident like that which was caused by the extraordinary flood consequent on the breaking up of the frost in January, 1861. It has been constructed under the directions of the company's superintendent of works, assisted with the advice of their consulting engineer, and will provide effectually for the security of the reservoir. In conclusion, the committee beg leave to state their devoted opinion, that, on a review of the general progress of the concern, and the efficient state to which the works are now brought, the proprietors may look forward with undiminished confidence to continued and increasing prosperity.

AUDITOR'S REPORT.

Your auditors having examined the accounts, together with the vouchers for the receipt and expenditure to 30th September last, report that they find the same to be correct, and that the cash balance in hand is about 2,000l. (including Exchequer Bills). The system of the company's accounts, situated in their last report, being still under revision, your audit committee are not prepared to state the exact state of the company's year-end claims upon it, and, consequently, cannot give the exact balance. It is, however, gratifying to your audit committee to report, that your cash balance is about 2,000l., with something like the same sum for sundry and rent in arrears in amount with those shown in former printed statements—viz., about 100,000l.—and the liabilities, upon the same principle, at about 100,000l., leave a balance of about 100,000l. in favor of the company for the first half-year. Your revenue fund amounts to about 400,000l., the shares being at this time worth 12l. per share, and the sum of 100,000l. having been added to that fund under the resolution of the last general assembly.

Mr. GREEN asked if the committee were in a position to render a balance sheet for the half-year, ending the 30th of September.—The CHAIRMAN: They are.—Mr. GREEN: I dare say it will be very satisfactory to the meeting to hear that from the chairman.—The CHAIRMAN observed that the annual half-yearly meeting would be the proper time for the accounts to be examined.—Mr. GREEN then moved, "That the accounts of the company in future be rendered at each half-yearly meeting; and that, before each half-yearly meeting, the same be distributed among the proprietors, with the auditors' certificate."—The motion, having been seconded, was passed unanimously.—Mr. A. M. WILSON said that it was objected to touch the reserve fund, except under very extraordinary circumstances; but, in the present case, very considerable benefit would arise to the company, from taking possession of the freehold property at Limehouse. He would, therefore, move, "That the amount of the provision, say 500,000l., be taken from the reserve fund."—He had no doubt that the company would realize a very good interest for the money laid out in that property, which, he felt assured, would soon be found very beneficial to the company. He would move also, "That some be taken from the same fund, for the erection of sheds at Limehouse Dock."—A FAVORABLE answer was given to the resolution that the reserve fund should not be touched till it came to a certain sum.—The CHAIRMAN: Report in special cases.—Mr. A. M. WILSON: A portion of the surplus will be set aside for the future augmentation of the reserve fund, and that reserve fund is not to be appropriated except in very special cases.—Mr. H. GREEN thought it was very desirable to take so large a sum from the reserve fund, which was only 400,000l., as it would have only a paltry 100,000l. or so behind. It would be much better to keep the reserve fund, to provide for a steady dividend.—The motion was, however, passed by a large majority.

Mr. GREEN then made a suggestion for the hour of meeting, which Mr. A. M. WILSON and others thought should be one o'clock, and it was agreed to.—Mr. GREEN, Mr. LOWN (the solicitor to the company), Mr. BARNES, and other gentlemen, then retired by a change of Mr. H. GREEN, who officiated that the appointment of a clerk had not been made by a question of the committee, but by the deputy-chairman per se. Mr. A. M. WILSON said that the committee had previously gone through about 100 letters, out of which 500 were sent out with each dividend, and were agreed, and after going through them, they were sent with the deputy-chairman. Mr. FORTER, and one or two others, then rose and gentlemen concluded, and he applied say so they thanked. The chairman then retired, and he only in a casual manner from Mr. GREEN, the CHAIRMAN (having previously said in his words) said that the amount of profit for the half-year, ending the 30th of September, was 10,000l. 10s. 6d.—Mr. A. M. WILSON then moved a vote of thanks to their late deputy chairman (Mr. Culling Smith), for his great attention to the affairs of the company, and the great interest he had manifested in the affairs of the company, which was seconded by Mr. A. M. WILSON, and passed by a large majority. A vote of thanks was also passed to the chairman, when the meeting adjourned.

It is only justice to say, that every attention was afforded to the press by the committee and Mr. Ross, the secretary to the company.

GRAND JUNCTION CANAL COMPANY.

The half-yearly general assembly of the proprietors in this undertaking was held on Thursday, the 6th inst., at the Crown and Anchor Tavern, Sir WILLIAM EDEN in the chair. The report of the committee states, that the net tonnage for the half-year ending the 30th of June, 1862, amounted to 51,512l., being 19,376l. less than in the preceding six months, and 2415l. less than in the corresponding period of the preceding year. This falling off in the revenue was to be attributed to the general depression of trade throughout the country. The committee, however, had to inform the proprietors, that although the revenue had been thus diminished, yet, in consequence of the reduction of expenses which had been made in the working of the canal, amounting to nearly 80,000l., the balance in the hands of the company amounted to 44,882l., being 30,066l. greater than the balance of the same period of the preceding year. The committee, therefore, recommended the declaration of a dividend of 3l. 10s. for the half-year, amounting to 40,092l., leaving a balance of 47,067l., out of which the Income Tax would be paid, and the remainder carried to the account for new works. A sum of 56,000l. had lately been expended for repairs on 135 miles of canal. The report having been received and adopted, the meeting separated.

DUKE OF CORNWALL'S HARBOUR AND LAUNCESTON AND VICTORIA RAILWAY COMPANY.

A special meeting of this company was held at the London Tavern, Bishopsgate-street, on Thursday, the 6th inst., to receive the award of the arbitrator, Mr. G. S. WILSON, to whom the case between the company and their late secretary, Mr. George Ross, had been referred.—The chair was taken by Mr. HAMBROTH, M.P., but only a few proprietors attended. At the request of the chairman, the SECRETARY read the notice, and the SOLICITOR (Mr. Cole) read the award of the arbitrator, which was of considerable length, and the substance of it was, that a verdict was given against Mr. Ross for 412l., with 200l. for interest, and 600l., being half the expenses of the award—making it 1,012l. due to the company, from which 12l. 13s., a balance of salary due to Mr. Ross, was to be deducted, so that the balance due to the company, was 890l. 7s., or thereabouts.—Mr. PRYNE said, that on the part of his clients, he congratulated the directors of the company, on bringing the case against Mr. Ross to such a satisfactory conclusion, though they had all been great sufferers. The chairman had alluded to the scanty attendance that day, but he would say, for all the clients he had the honor to represent (which consisted of a large proportion of that company) that they were so satisfied with the conduct of the directors and of the explanation that would be given, that they would not trouble themselves to come to hear the report, and he was quite sure if they were present, if not the whole, some of them, would express their grateful thanks for the attention of the chairman and directors, in giving up so much of their valuable time to this very unfortunate and most unprofitable business.

The CHAIRMAN observed, that had it not been for that had speculation with their late secretary, which had given them so much trouble, and had cost the proprietors a large sum of money, the winding up of the affairs of the company might have taken place several years ago. Looking now at the successful issue of the trial, he hoped the proprietors would come forward to meet the necessary call of the directors, so as to prevent any further litigation. The call of 2l. per share would probably be not all required; it might not exceed half, and perhaps less, but if any surplus remained the proprietors would be made acquainted with it, and it would be returned. Every courtesy and every leniency would be shown towards those who expressed a wish to act honorably, but for those who continued to be refractory members, it would be their duty, placed as the directors were, to compel payment, however unpleasant that duty might be to themselves.—Mr. PRYNE hoped that, as this was the last call, the proprietors would, at least, come forward readily, if not cheerfully.—The CHAIRMAN trusted they would, and that their next meeting would be the last. He begged to express his thanks to the gentlemen of the press for their attendance on the occasion.—Mr. CRAWFORD said he should move a vote of thanks to their worthy chairman, for his urbanity on all occasions, which was seconded by Captain BOND, R.N., and passed by acclamation.—The CHAIRMAN returned thanks, and said that he should do his best for the interest of the proprietors, and thought, at all times, that the more open their discussions were the better for all concerned.—Mr. RICHARDS said, they now saw what they had got by the cry of "no compromise with Mr. Ross," after three years' litigation against a claim founded in justice, which was proved forward to be the case by the result of that arbitration. Had they paid his claim of 20,000l., he would, no doubt, have set up another for 50,000l., as his interest in the land and the profits the company had made; so much, therefore, had been gained by litigation against this getter-up of a company.—After some sharp remarks on the conduct of Mr. Ross, the meeting separated.

UNITED HILLS MINING COMPANY.

A special meeting of the shareholders of this company was held at the office, in Adam's-court, Old Broad-street, on Thursday, the 6th inst., pursuant to advertisement, but, being considered of a private nature, the reporter for this Journal was not admitted.

HIBERNIAN JOINT-STOCK BANKING COMPANY.

The half-yearly general meeting of the proprietors in this company was held on Monday, the 5th inst., at their banking establishment, in Castle-street, Dublin, H. M'CARDLAND, Esq., (the governor), in the chair. The SECRETARY submitted the directors' report, and the statement of accounts, from which it appeared the assets were 452,954l. 14s. 11½d., and the liabilities, 167,363l. 4s. 10½d., leaving a sum of 285,591l. 10s. 14d., from which deduct the paid-up capital of 30 per cent., 330,000l., shows a clear balance in favor of the company of 45,591l. 10s. 14d. The directors congratulated the proprietors on the satisfactory progress of their business. The report slightly alluded to the partial and injurious operation of the Stamp Act, with reference to the taxation on the sale or transfer of the company's stock; and that the directors should, in due time, impress on Parliament their views and feelings on the subject. The report and accounts were then adopted, and a motion, granting the usual remuneration to the directors, passed unanimously. Thanks were voted to the chairman and directors, and the meeting separated.

PROTECTOR LIFE INSURANCE.

The annual meeting of the proprietors of this association was held at their office, Old Jewry, on Thursday, the 6th inst., GEORGE RICHARD ROBINSON, Esq., (the chairman at Lord's), in the chair, who, after entering into various details, congratulated the assembled proprietors on the favorable progress made by the society. A report was read and adopted. W. HENRY, and Robert Hugh Jones, Esqs., were elected directors for the ensuing year, and Thomas Hodgkinson, Esq., was again chosen as an auditor.—After a vote of thanks to the chairman and directors, the meeting separated.

THE BRITISH AMERICAN ASSOCIATION.

On Thursday last, the 5th inst., the promoters of this association had a meeting at the office, 25, New Bridge-street, Blackfriars. The room was well filled by gentlemen interested. Sir JAMES MERRITT in the chair. The SECRETARY having read the minutes of the last meeting, Mr. ANDREWS read the report of the commission, which, after referring to the fact that a report of the former meeting had been prepared by a reporter employed by the company—signs of which were sent round to the various papers, but not inserted—it proceeded to say, that the commissioners, sensible of the justice of their cause, did not intend to reply to the observations of the press. They had discharged themselves of a public duty, in the statement of facts presented to the last meeting. The despatches received from Sir Allan McNab on a gratifying nature, showing how the objects of the association are appreciated in Canada, and the support it will receive from that colony, and the valuable treaty of land which will be opened for colonization. They had received letters advising the arrival of the emigrants of Prince Edward's Island, who went out in the Lady Wood, and also from Mr. Peters, the Solicitor-General of the colony, announcing the unqualified approbation of the local Government to the measures adopted, and it concluded by recommending the committee to inquire into the truth of the charges.—Sir R. BARNES moved the adoption of the report, and stated his position in society, that the charges against the association would prove without foundation.—Dr. ROBINSON seconded the motion. He was astonished, on his return, at the charges against the society; though entertaining no doubt of the result, he should stand aloof until the investigation had closed.—The following amended resolution was then adopted:—"That a committee be appointed to investigate the charges recently brought against the association, and to report thereon, with a general report to be signed by the committee, and the means proposed to contain it." The following gentlemen were nominated the committee:—Sir J. MERRITT, Mr. LADIN, Mr. W. Smith, Mr. F. Wilson, and Mr. BARNES, with power to add to their number from persons recommended by the association. Thanks having been voted to the chairman, the meeting separated.

COMMERCIAL GAS-LIGHT AND COKE COMPANY.

On Thursday, the 5th inst., a special general meeting of the proprietors of this company was held at the London Tavern, and was attended by a number of two-thirds of the proprietors, Mr. BARNES in the chair. After a long discussion, it was agreed that 100 new shares, of 10s. each, be created; the holders to be entitled, after full payment, to interest, in the nature of dividends, in the extent of 2½ per cent. per annum, in preference to the old shares, and the holders to have equal rights to be on the same footing as the proprietors of old shares; the shares to be sold to the present proprietors; and the amount of 10s. on each to be paid in five monthly instalments. This resolution having been passed, another special meeting was appointed for the 12th inst., for confirming such resolution, after which the meeting separated.

MINING CORRESPONDENCE.

ENGLISH MINES.

HOLMSTON MINING COMPANY.

Dec. 3.—Hitchins's shaft is sunk below the sixty fathom level 6 fms. 2 ft. the ground at present is very hard. In the 110 fathom level west the lode is still ten inches wide, and worth 8l. per fathom; the winze, below this level, is suspended, and the men are removed to sink a winze in the 100 fathom level. The 100 fathom level, both east and west of Wall's shaft, is as reported last week; the cross-cut at this level, towards the Flagjack lode, continues in hard ground; the lode in the eastern stopes, in the back of the same level, is two feet wide, and worth 35l. per fathom; the lode in the western stopes, in the back of ditto, is twenty inches wide, and worth 35l. per fathom. In the eighty and ninety fathom levels, west of Hitchins's shaft, we are still cross-cutting for the lode; the lode in the eastern stopes, in the back of the latter, is eighteen inches wide, and worth 32l. per fathom; the lode in the middle stopes, in the back of ditto, is eighteen inches wide, and worth 35l. per fathom; the lode in the western stopes, in the back of ditto, is twenty inches wide, and worth 24l. per fathom. In the eighty fathom level east the lode is fifteen inches wide, intermined with ore; the cross-cut to the north lode, at this level, is still in favourable ground; the lode in the stopes, in the back of ditto, is fifteen inches wide, and worth 24l. per fathom. In the sixty-two fathom level we are driving to cut the north part of the lode. The lode in the twenty fathom level east is one foot wide, and chiefly mangle, spar, and enamel. In the deep adit, east of Lady Beam shaft, no lode has yet been taken down. F. PHILLIPS.

TRETOL MINING COMPANY.

Dec. 5.—The lode in the forty fathom level, east of Williams's shaft, is eighteen inches wide—very good tribute ground. The lode in Henwood's shaft is fifteen inches wide—tribute ground. The lode in the forty fathom level, east of Henwood's, is six inches wide—very good tribute ground. The lode in the forty fathom level, west of ditto, is 18 inches wide—good tribute ground. The lode in the thirty fathom level, east of Henwood's shaft, is 15 inches wide, producing stones of ore; we expect there is another part of the lode further south; we have commenced driving south on the cross-course to intersect it. The tin lode in the back of the adit level, east of Morcom's shaft, is, as last reported. Last Friday we set fifteen pitches, varying from 2s. 6d. to 12s. in the 17. H. WILLIAMS. J. MORCOM.

TRELIGH CONSOLS MINING COMPANY.

Dec. 3.—In Christie eighty fathom level east, the lode is two feet wide, worth 7l. per fathom; at this level we have not yet cut the lode. The lode in the seventy west is eighteen inches wide, worth 5l. per fathom—this is a very kindly lode. At the sixty west the end is suspended to drive under Garden's shaft. The fifty west is three feet wide, but not much ore. The lode in the forty west is eighteen inches wide, worth 5l. per fathom. At Good Fortune, the fifty cross-cut is extending to communicate with Wheel Maria. At the forty-four east of Good Fortune we are rising in the back; the lode is one foot wide, worth 6l. per fathom. The rise in the forty-four west is eighteen inches wide, worth 7l. per fathom. W. SYMONS.

WEST WHEEL JEWEL MINING ASSOCIATION.

Dec. 5.—The ground in the eighty-five cross-cut, south of Buckingham's shaft, is a great deal more favourable. The seventy east on the south branch is worth 3l. per fathom. The seventy east on Wheel Jewel lode is worth 12l. per fathom. The fifty-seven east on this lode is worth 12l. per fathom; the winze, sinking under this level, is worth 20l. per fathom; the winze under this level west is worth 5l. per fathom. The winze under the forty-two east, on Wheel Jewel lode, is worth 30l. per fathom. S. LEAN.

BEDFORD UNITED MINING COMPANY.

Dec. 5.—Wheel Marquis.—The lode in the forty fathom level is about two feet wide, composed of mangle, floor spar, and fine stones of copper ore, worth about half a ton per fathom. In the thirty fathom level east the lode is about one and a half feet wide, composed of spar, mangle, and spots of copper ore, but not sufficient to pay for saving. The new shaft has been sinking with good progress, and on Friday last we holed to old men's workings, and find the lode for the most part stopped away near to surface, for about forty fathoms east of the shaft, but how far west we cannot exactly ascertain, the workings in this direction being "run'd" together, from the old timber having given way. There are two lodes, a north and a south lode, which come together west of the shaft, about seven fathoms, and at which point the working on the lode is seven feet wide. The pitches are without alteration. At Deane's Kitchen the shaft is still suspended, in consequence of the water. JAMES PHILLIPS.

UNITED HILLS MINING COMPANY.

Dec. 6.—Seventy Fathom Level, east of Williams's Shaft.—Lode three feet wide, coarse in quality; west of ditto, lode two and a half feet wide, one foot ore of fair quality. Sixty Fathom Level, east of Eastern Shaft.—Lode three and a half feet wide, producing some good stones of ore; west of Diagonal shaft, lode four feet wide. James's Shaft, sinking under the Fifty Fathom Level.—Lode two and a half feet wide, one foot on the south part ore of average quality. Forty Fathom Level, east of Eastern Shaft.—Lode two and a half feet wide, nine inches on the north part good ore; cross-cut north of James's, at the forty, no lode cut as yet. Fifty Fathom Level East.—With tribute 4s. 6d.; lode three and a half feet wide, two feet good ore. N. LANGDON. J. H. FRANCE.

CORNUBIAN MINING COMPANY.

Dec. 5.—The lode in the seventy fathom level is two and a half feet wide, with some promising indications. In the sixty fathom level west the north and Chilverton lodes are united, forming two feet wide, good work. The winze sinking below the fifty fathom level is still passing through good ore ground. The fifty fathom level, west of Murray's shaft, is favourable for driving, producing stones of lead. J. WARR.

TREGOLLAN MINING COMPANY.

Dec. 5.—We have accomplished the enlargement of the shaft between the thirty and forty fathom levels, and have to-day commenced driving east at the sixty-two fathom level, where the appearance and value of the lode is much the same as last reported; the ore part is two and a half feet wide, and will produce from four to five tons per fathom. We shall also commence driving west at this level to-morrow or the following day, where the lode is likewise productive, and we shall resume the sinking of the sump as soon as circumstances will admit. The fifty fathom level east is also much the same as stated in my last, still passing through tribute ground. The tribute pitches look much the same. J. NINNIS.

TINCROFT MINING COMPANY.

Dec. 5.—Our men, driving south at the eighty-one, have cut a good branch of tin, which is a good precursor for the lode, and shows that we must be very near to it. The pitch at the seventy-two is not quite so good as it has been, though now yielding good ore. One of our pitches in the back of the fifty, at north winze, has improved recently. The sixty east and west are looking very promising indeed; and also the rise in the back of the fifty, with the winze sinking on it from the forty. Other places remain stationary. W. PAUL.

MINE ACCIDENTS.

Cure River Mines.—A most frightful accident occurred here on Wednesday last. At six o'clock in the morning, about fifty or fifty men were in the shed containing their clothes, preparing to go underground, when a young man, named Walters, who was pouring gunpowder from a cask into a container, dropped a spark on the powder, and produced a most destructive explosion. All the men's lockers were set in flames, and, as each contained powder (in all about 10 cwt.), there was a constant succession of explosions. The loss of life and property had been very great; about 400 men have sustained a loss of at least 11. each, besides their time and materials, and the loss to the adventurers, consequent on the destruction of property, and the suspension of labour, may be estimated at about 50,000l. The actual loss of life cannot be correctly ascertained. Four Walters was blown to atoms, and his father was so much hurt that he died shortly after; nine others were more or less injured. [We are indebted to Mr. Osler for the notes received this morning, which states that four of the injured men have since died.]

Thomas Mine.—On Saturday afternoon last, the middle boiler of the engine in Thomas Mine, in the parish of Henegre, burst with a tremendous crash, no person received any injury, the engine and several miners having left the engine-room a few minutes before the accident, thus narrowly escaping horrible destruction.

Wheel Friendship Mine.—On the 23d ult., Ezekiel Johns, jun., accidentally fell into a shaft, whilst engaged in removing and changing some tubs.

Collymore Mine.—J. Chapman met with his death by accidentally falling into a shaft whilst employed in filling a tub in these mines a few days since.

Elmore.—On Wednesday last, a large piece of coal fell upon Thomas Hawke, of Westworth, while at work in the pit at Elmore, and killed him on the spot.

Cock Limestone Quarries.—On Thursday last, an Joseph Allen, of Cock Carr, was at work in one of the quarries, he accidentally fell off the roof from a height of about four yards, and alighted with his back against a stone that was thrown down, and was very seriously injured.

Dunlop.—On Thursday week, John Alden descended one of the Whistletree at Dunlop, and having finished the exploration of the works was ascending, when, by some accident to the machinery, he fell into the sump, where there was a considerable quantity of water, and was drowned.

Pendle Colliery, near Burnley.—As Morgan Owen, a collier, was employed in cutting coal in this colliery, a large piece of coal fell from the heading, and killed him on the spot.

Plymouth Iron Works.—Lewis Lewis died, a few days since, from the effects of injuries he received by an explosion of fire-damp.

Conder Park.—Thomas Hunt was accidentally killed in consequence of falling down the shaft of an abandoned pit, about 120 yards deep.

Arundel Mine.—On Saturday week a youth named Thomas, employed at Mr. Bennett's mine, had his arm fractured by a piece of coal falling on it from a tub which was ascending.

ON THE WICKLOW SULPHUR DISTRICT.

BY HENRY THOMAS, F.R.S., MINERAL SECRETARY.

The county of Wicklow, in Ireland, celebrated for the variety and beauty of its scenery, and for the extent of its antiquarian remains, is equally interesting to the miner and the geologist, in the number and value of its mineral productions. The present notice will be limited to that portion of the county which may, with propriety, be called the sulphur district, from its capability of affording an ample supply to the demand of the United Kingdom for the iron pyrites from which sulphuric acid is manufactured during a long future period.

The metalliferous range of clay-slate may be said to commence with the mountain of Craghan Kinsella, and to extend from thence, in a north-easterly direction, through the townlands or estates of Moneyshegus, Ballynag, Knockmahill, Ballymore, Ballymattagh, and Ballygahan, on the western bank of the Oyoca, and through Tigrany, Cronbane, Connoree, Kilmacow, and Ballinabarny, on the eastern; a length of about ten miles, and of very limited breadth. The trials in the three first-named townlands have hitherto been limited, and the veins have been found to contain chlorite, quartz, considerable quantities of magnetic ironstone, and small strings of copper pyrites; but it has not yet been ascertained that any large deposits of pyrites exist beyond Ballymore in a south-westerly direction. On the north-east productive workings have not been extended beyond Kilmacow, although, from the strongly impregnated water issuing from the eastern flank of Ballinabarny Hill, that limit may not be too far to assign to the sulphur district in that direction. The large vein of pyrites, or sulphur ore, from whence alone the supply has been obtained for the past three years, and which is to be regarded as the source of supply for the future, continues uninterrupted, although of unequal size and productiveness, through each of these mines—viz., from Ballymore to Kilmacow. It has afforded, at intervals near the surface, very rich deposits of black copper ore, which, in depth, has passed into copper pyrites and iron pyrites. Other parallel veins, principally of quartz, producing occasionally good bunches of copper pyrites, have been successfully worked.

The clay-slate, in which the vein of pyrites, or the "Great Sulphur Course," occurs, is without organic remains, varies in colour from a light grey to deep blue, sometimes intermixed with black shale. In the vicinity of the vein it is generally fissile, and disposed to exfoliate in the softer portions, where it has the appearance of decomposition, which is most prevalent immediately on the walls of the lode. The slate is more or less silicious throughout, passing at times into a quartz slate, of considerable compactness and hardness. The burrows, or heaps of debris, exhibit disintegrated masses, which, from the quantity of rejected pyrites and slacks, contained in them, are mostly covered with an efflorescence of mineral salts—viz., of arsenic, iron, and copper. The stratification to the south of the vein, at varying distances, is strongly characterised by the presence of large masses of quartz rock, forming barren ridges (planted occasionally with fir) and precipitous escarpments, and adding, as in the Bell Rock adjoining Ballygahan, much to the beauty of the scenery in the Vale of Oyoca. The bearing of the slaty cleavage is about 20° or 25° south of west, with a dip to the south-east. The bearing and dip of the vein are identical with the containing rock, undulating, as in general, with lodes in other countries, both in direction and dip. The pyrites partakes of the bedded character of the slate, is arranged in laminae dipping in a similar direction, which, in the eastern part of the district (Connoree), varies from 20° to 50° from the perpendicular. The size of the vein is changeable, and its productiveness intermittent. In several parts of its course it contains immense deposits of iron pyrites, provisionally called sulphur ore, extending occasionally to a width of seven or eight fathoms, containing alternating beds of differing hardness and quality, with occasional intervening beds of soft clay-slate. The vein, as well as the rock, is intersected by joints transverse to the dip and bearing, which much facilitate the operations of the miner. The pyrites, at the joints, show frequent "stickensides," with bright, polished, and often striated, surfaces. These large deposits of pyrites are generally accompanied on the north, or hanging wall of the vein, by a "flookan," or soft clay, which, in Connoree, is mostly white, and found frequently to occupy the interstices of the joints. When in this state great care is required in extracting the mineral, and in giving security to the workings. The pyrites is sometimes, but very seldom, found crystallised in the blistered form—it occurs massive, homogeneous, compact, and crystalline in texture, and, on the whole, of great uniformity in its composition and quality. The manufacturer requires from three to four tons as an equivalent for a ton of Sicilian sulphur, which shows a great loss in the process of extraction, as analyses of the pyrites range from 40 to 50 per cent.

In most of the mines enumerated, some of the iron pyrites becomes more or less associated with copper, not, as in most instances in Cornwall and other mining districts, with a distinct separation of each mineral visible in the stone, but as a species perfectly homogeneous and compact as the ordinary pyrites, and distinguishable chiefly by its yellow colour. This constitutes what is known as the "copper sulphur ore," and produces from 2 to 3 and 54 per cent. of copper, for which the miner is paid as well as for the sulphur, and is, when in sufficient quantity, tolerably remunerative. It occurs in beds in the great sulphur lode, and has also been economically available as an ore of copper alone. The mines now raising such large masses of pyrites were first opened, and worked to a very considerable extent, for copper, and are still working for produce of both kinds. The prosecution of the various levels having for many years proved the presence of pyrites in large quantities, rendered it capable of being mostly wrought at once without delay, and immediate additional heavy expense of water, at the moment of the sudden and unexpected demand created by the well-known proceedings of the King of the Two Sicilies.

It is somewhat problematical, whether the price of pyrites would have been an inducement sufficient to have led to the opening of new mines for that mineral alone, except under the most favourable circumstances, nor does it appear that even with all the advantages of plant, machinery erected for other objects, skilful management, and largely-developed resources, that adequate remuneration is afforded to the miner. Most of the pyrites contains a small per centage of copper, not commercially available, but it is a question of considerable interest, of which experience alone will afford the solution, whether, in the deeper prosecution of the workings in this district, a beneficial change may not be expected in the composition of the vein by an increase in the proportion of copper. The extensive beds of mangle, or iron pyrites, occurring in Cornwall and other mining districts, immediately overlying rich deposits of copper ore, are too strongly characterised to allow of a similarity of reasoning being applied to the Wicklow district, where the pyrites differs in so many respects in its compactness, uniformity of composition, and general freedom from admixture of other minerals. A limited deposit of lead ore, containing about 30 per cent. of that metal, and a small quantity of silver, has been wrought in Kilmacow, about ten fathoms from the surface. Being found to pass to a greater depth into pyrites, and being otherwise much impregnated with iron, it is not of much commercial value; its general appearance is that of a steel-grey silver-lead ore, giving rise to very deceptive estimates of its value. The yearly produce of pyrites from the mines of Ballymattagh, Ballygahan, Tigrany, Cronbane, and Connoree, has varied with the demand, from 50,000 to 70,000 tons or upwards, which quantity could, doubtless, be considerably extended, were the demand to require it, and the price to become more remunerative.

THE IRON TRADE IN GERMANY.—Although Germany possesses rich and numerous mines of iron, in the mountains of the Harz and in Silesia, their product does not suffice to cover the extent of consumption, and that of the railways is progressing on so many points of her territory. The imports of this metal continued, therefore, still on the increase in Hamburg, and principally from England; from whence, in 1861, no less than 30,000 tons were despatched and received in that port, and which, according to the best of valuation there, represented a value in sterling equal to about £10,000.—*Herald.*

CHURCH REMOVAL.—Many and great are the improvements reported brought under our notice on various other articles, but very few have presented themselves of an elevated and satisfactory character as the present Great Western Railway, recently introduced to the public by the ingenious Messrs. Perry. It is constructed in a cylindrical form, and so arranged, that, when turned on its axis, towards the water, it presents a cup, containing a constant supply of oil, and, when reversed, it closes hermetically, entirely excluding both air and dust—improvements which our readers cannot fail to appreciate. The progress of mechanical improvements is, indeed, great, and we hope the spirited patronage will meet with sufficient reward for the ingenious contrivances which we have to-day to commend their attention to as useful and perseveringly a course as they have been for some years engaged in.

MINING IN AMERICA.

[Continued from the last Number of the Mining Journal.]

As to the nature of the ore, its origin, by a right idea of which some judgment may be formed of its probable continuance, it seems that the evidence or figures which the workers describe as occurring in their diggings have served as passage ways through which the ore has been projected from below, either in a melted state or in a state of sublimation, or by more slowly acting electrical causes; and that near the surface on the line of fissures (which is likely to be nearly the line of contact of the two rocks), the ore has found favourable circumstances to spread and deposit itself; and further, that these same circumstances may be expected to be renewed at different depths, and the ore there found in lateral injections between the limestone strata, in veins and in the main fissures themselves. Veins of calc spar are of frequent occurrence in these rocks, and one, in particular, was discovered some years since in the red rock not far from the present copper diggings, of uncommon thickness. These also accompany the better developed copper ore veins in the primary rocks on Lake Superior and in other parts of the world; and Dr. Houghton has remarked of them, that they pass into veins of copper ore, and veins of copper ore may be traced through different changes till they become veins of calc spar.

Copper ore, as well as lead ore, is obtained to some extent in this formation in England. The deepest mine in that country is the Ecton Copper Mine, in Staffordshire, the shaft being 472 yards deep in the mountain limestone. One of the other localities to which I have referred, as containing indications of veins of copper ore, is on the other side of Jack's Fork, connected with this same red rock ridge, not two miles from the old diggings. The limestone and the red rock are both exposed, excepting just at the point of contact; they both manifest the same variety of changes as they approach each other that they do at the old diggings—the same purplish appearance of the quartz rock—the same breccia that there filled the rotten vein is here noticed—and small pieces of carbonate of copper have been dug up from a hole only four feet deep. But there seems no probability of here finding a large deposit of surface ore.

The third locality is that known as "Valley's diggings," Mr. Nered Valley, of St. Louis, having spent some time in working there, and owning a large share of the mine. It is on the north side of the Current River, not quite a mile from it, and about seven miles north-north-east from the old diggings on Jack's Fork. Here too the ore is found at the junction of the red rock and the limestone, on the edge of a little run which had washed out loose pieces of the ore, thus leading to the discovery. All that can be determined of the quality of the ore here is, that there is a seam about four inches thick running horizontally under limestone strata into the hill; what its extent is no one can tell, nor whether it leads to any rich veins. The ore is of a different quality from that at the old diggings, being more of a sulphuret, and this mixed with the blue carbonate as well as the green. It much resembles the ore from Mineral Point, Wisconsin. The red rock belongs to a different ridge from that at the old diggings, being farther east. In character, however, and in the changes the rock undergoes near the limestone, they are the same. Valley became tired of the country and the business, and quitted both. He did considerable work here, but too judiciously to determine anything concerning the capabilities of the mine. These repetitions of the ore encourage the prospect of this becoming a copper mining country, and naturally lead the people there to look for other veins of ore, which, to some extent, they have been successful in finding. I have seen ore said to have been discovered near the Current, not far from the Arkansas line, and also from Fourche à Dumas, a stream in that same part of the country. Many discoveries are also reported to have been made by individuals, who think it prudent to keep them secret, now that the Government lands are not subject to entry. These localities and others, no doubt, might be discovered by a party of a few men kept at work exploring. But though this may turn out to be a copper mining country, there are many things now operating greatly to its disadvantage. The lands are not yet in the market; the titles to the mines are founded on old Spanish claims, and on the right of preemption. These are in contest between two parties as regards the old diggings, and their dispute is not likely to be soon settled. Then, whichever party is successful, the mines will be valued at an exorbitant rate, as though they were already proved to be rich and permanent. Then, too, their remoteness is a serious objection; they are 140 miles by road from Cape Girardeau on the Mississippi River. The country between is unsettled and poor, and little communication is had across it. All the supplies of weight and bulk must come up the Current River, so that all kinds of store goods are of high price, and not easily obtained.

The hills in the neighbourhood can never pay for cultivation. It is only the narrow strips along the sides of the large streams that are fertile; these, however, may be made to support a considerable population. The climate is exceedingly unfavourable to enterprise, six months of the year, at least, being hot and oppressive, if not unhealthy; if the people become accustomed to it, they also become very indolent in their habits, and a labourer there accomplishes in a day about half as much as in other parts of the United States. Still the price of labour for the most common kinds, is up to from \$10 to \$25 per month, and found, and a regular miner receives from \$20 to \$30. There are few slaves in this section of the country. In regular mining, it is considered preferable to pay so much for the ore raised than to give wages, no confidence ever being reposed in the faithfulness of agents. And this is another serious objection—the inability to encounter difficulties with the hands, they being generally of unskilled habits, and all possessing a most independent spirit, that hardly permits them to work for others at all, and causes them to quit for the slightest cause, particularly when the lands around them shall be subject to entry, and they can for a few dollars purchase a farm of their own. Selling the ore is to them, therefore, the most satisfactory way of proceeding, while the mine itself is left to suffer from bad management and want of thorough explorations. The provisions required by the people are of the cheapest kind—corn and bacon, coffee and sugar, being nearly all they need. Corn may be bought at prices varying from 25 to 30 cents, a bushel, and bacon at about 8 cents, a pound; the other articles about double their value in a civilized country. Horses are suffered to take care of themselves; they will fatten in the woods after the 10th of April, on an abundance of wild hay might be cut if wanted. But few of the settlers keep a supply of hay, fodder, or oats; all, however, are well supplied with corn. Cattle can do very well in the woods, and with little expense could be raised in great numbers; so of hogs. But the wolves and a sickness peculiar to the sheep here, will prevent their being raised to any extent.

It is a good country for water power, fine springs, ever flowing and never freezing, bubbling out on the hill sides, and sometimes offering power enough for any works at their very sources. Some of these are described as curious, two, such as are seldom met with elsewhere. Connected with these springs by similar causes, are the phenomena of sinking creeks, natural tunnels through the hills, and vast caves hardly explored as yet, all due to the tendency of the limestone to be worn and hollowed out by the action of water. The river being supplied by these springs, and running quick, never freezes over; but it is only at intervals, except in the spring months, that it is up to that state can run. When they do go, they are carried down very rapidly, but there are no dangerous rapids; boats are sometimes dashed against the cliffs in the sharp turns of the river, which are frequent. Steam boats have come up within eighty miles of the Forks (Jack's Fork and the Current), and it is thought that if there were an object, they might come to the Forks in the spring months and during the winter. There are about ten mills, principally on one mile, along the Current and its branches, north of the Arkansas line. Rills of pitch pine are sent down every year to great numbers. The forests being from \$15 to \$20 per thousand feet, but they may be bought for \$10 at the mills. They are put together to the amount of six in thickness, and so run side by side below the state line, when the rills are doubled. The paper that was made, was cut down on large flat beds, which were constructed for the purpose, and could carry from twenty to thirty tons each. About twenty-five tons altogether were made on the Current, and then shipped for New Orleans. The estimated amount of the expense of making lead, which I had on mind in Missouri, as before mentioned, of obtaining, cannot differ essentially from the estimate given of the Wisconsin miners. There is this difference, however, in the price of the "mineral," or lead ore, that when it is sold by the miners in Wisconsin for from \$15 to \$16 per thousand pounds, it brings them in Missouri about \$18 for the same quantity. Lead is worth about half a cent, more a pound in St. Louis than it is at St. Anna.

BECKENHOF'S AWARDS.—It will be soon by our advertisements, that a new series of this work, comprising the Eastern and Western States, was published on the 1st of December; and that subscribers' names, for early copies, may be forwarded by post to the editor in London, to be added to the list, which already contains nearly a thousand names, embracing several of the sovereigns of Europe, besides the Royal Family of England, and some of the most distinguished princes and monarchs, as well as universities and traders, without distinction of party—the work being now generally recognised by all as worthy of the greatest attention, for its fulness, accuracy, and impartiality, on all subjects connected with America.

GRAND AGEE.—At the second meeting of the Chemical Society this evening, held in the course of the Society of Arts, Adelaide, a very interesting paper was read from Dr. Stenhouse, of Glasgow, by the assistant-secretary, on the nature and on the composition of gaseous acid from various, obtained from various sources. A beautiful specimen of pyrophosphoric acid, prepared by Dr. Stenhouse (whose investigations will, no doubt, appear in the society's transactions), was shown to the audience. One hint may be given to the chemical manufacturer—namely, that by the action of sulfur acid on tannin from oak bark, beautiful crystals of oxalic acid have been obtained.

MISCELLANEA.

KEENE'S MARBLE CEMENT.—At the Society of Arts, on the 30th ult., a paper was read by Mr. White, "On Keene's Marble Cement." It is described as a combination of sulphate of lime and alum. The gypsum undergoes the same preparation as for plaster of Paris, being deprived of its water of crystallisation by baking. It is then steeped in a saturated solution of alum, and this compound, when realkalised and reduced to a powder, is in a fit state for use. The cement has been most extensively applied to a stucco, but the finer qualities (when coloured by the simple process of infusing mineral colours in the water with which the cement powder is finally mixed for working) being susceptible of a high degree of polish, produce beautiful imitations of marble, and other inland marbles, congloma, &c. The cement is not adapted to hydraulic purposes, or for exposure to the weather, but has been used as a stucco in the internal decorations of Windsor and Buckingham Palaces. From its extreme hardness, it has been found serviceable when used for imbedding and setting the tiles of translated pavements, &c., and has been adopted for this purpose at the French Protestant Church, the new fire-proof chambers in Shorter's-court, and the Reform Club House. In the course of the discussion which followed, Mr. C. H. Smith and Mr. Lee adverted to the extreme hardness of the cement as its principal recommendation, when applied as stucco and for mouldings.

ASPHALT OF STYRAEL.—Some years ago, previous to the introduction of this material in England, much admiration was expressed of the pavement of the Place de la Concorde, at Paris; it has now become very general here, and the place laid down in Whitehall, facing the Horse Guards, four years since, remains unaltered, and apparently none the worse for wear, though only half an inch in thickness; the company have just published a list of testimonials from the most influential quarters, including the Commissioners of Woods and Forests, several heads of departments in the Government, and most of our first-rate engineers, recommending its adoption, from actual experience, under all circumstances where paving materials are used; also, as a cement, in the construction of docks, breakwaters, &c. It is, as our readers are, perhaps, aware, a bituminous limestone, obtained from an inexhaustible source at Pyrmont, in the Jura Mountains; it is free from smell, and, from its elasticity, never cracks; we certainly think it one of the best pavings for footways ever yet introduced.

TUNNELS.—During the last twenty years the cutting of tunnels through high grounds has caused much notice from the great obstacle placed in the way of the engineer, and which, on many occasions, have been found extremely difficult to surmount. It may be interesting to our readers, in connection with this subject, to state that there exists in the Abruzzi, in Italy, near the village of Capistrano, a tunnel, three miles in length, which was executed by the Romans (before the Christian era), and in the forming of which 30,000 slaves were employed during eleven years. It is twenty feet high, and at a depth of 400 feet from the highest surface. This subterranean passage was designed and executed for the purpose of carrying off the superfluous waters of the lake of Celano, and has lately been cleared out, employing 100 men for the past ten years.

WOODEN RAILWAY BRIDGE.—A bridge has been constructed near Mottram, a few miles from Manchester, which attracts much notice. It is composed entirely of Messrs. Hume's, and consists of three arches, the span of the centre one being 150 feet, and the two others 135 and 120 feet respectively. Each arch is composed of three ribs of laminated planking, wooden planks being placed on each other to the thickness of five feet. The centre arch is the largest ever built of timber, while that of London bridge, the largest in stone, being 152 feet; and the Great Western Railway bridge, at Maidenhead, is the largest in brick, 130 feet. The height of this bridge gives it a most colossal appearance; from the bed of the river to the parapet it is 140 feet, and a large manufactory on the banks of the stream has the appearance, when viewed in contrast with its gigantic neighbour, of a good sized doll-house; also a bridge of 60 feet span, just below, which in itself is a respectable piece of architecture, now appears really insignificant.

IRON SUSPENSION BRIDGE.—Mr. Dredge, of Bath, has just completed an iron bridge, at Frome, in Somersetshire, across the Avon. Its power is estimated at 100 tons, while its weight is under 1000 lbs., and occupied four men only four days in its completion; even the first day, it was so far completed as to admit common loads to pass.

NEWPORT AND NANTWYD RAILWAY.—In consequence of repeated rumours that this projected railway has been set on foot to intimidate the Monmouthshire Canal Company into a reduction of their rates of tonnage, the chairman (Mr. R. J. Blawie, M.P.) has officially disclaimed all such intention. He states—"The road is seriously intended to be made, and though difficulties will be interposed, my experience in worldly affairs has convinced me, that there is no difficulty which an honest intention, aided by courage and perseverance, will not surmount. I shall take an early opportunity of entering on the merits of the plan, contenting myself at present with a humble request, that the public will not believe the road to be given up or suspended, until they have an intimation to that effect under my hand."—[Since writing the above, we find that the plans and specifications necessary to obtain the Act of Parliament, have been deposited with the clerk of the peace at Uck, in compliance with the standing orders of the House of Commons. The line has been marked out by John Hodgkinson, Esq., of Aylsham. It commences near Newport Dock, goes by Highways and Cuckworth, to Pontypool and Abercromby. It then passes through Llanfyllis mountain, by a tunnel 2420 yards in length, into the Aberystwyth valley, and reaches the Nantwyt Iron Works at a distance from the Newport Dock of 21½ miles, and an elevation of 1042 feet.]

ACCIDENT ON THE BIRMINGHAM RAILWAY.—The train which leaves Aylesbury for London at eleven o'clock A.M. met with a serious accident, on Thursday last, about three-quarters of a mile from the Northchurch tunnel. The four rails (which are four and a half inches in diameter) suddenly snapped—the engine and tender were thrown over the embankment, which in this place is fifteen feet high on one side—and the leading second-class carriage went over on the other; three of the passengers and the stoker are very seriously hurt, but it is hoped, not dangerously, injured. On examining the broken axle, it appears that the iron, with a very small exception, was defective, although not apparent externally, and had broken off as close to the wheel as to have the appearance of having been cut with a knife; the accident will be fully reported to the Board of Trade for investigation by General Pauley.—[Since writing the above, we learn that one of the sufferers has died from the effects of the injuries he received.]

THE ACCIDENT ON THE VERBALE RAILWAY.—The important trial arising from this awful accident, and which may be considered a grand inquest to investigate the causes and consequences of the lamentable event commenced on the 22d ult., and was continued until Saturday last; the indictment was confined to Mr. John Hargreaves (administrator of the line), Mr. Barker (provisional director), Mr. Henri (chief of the Paris station), Mr. Bingham (chief engineer), Mr. Lecomte (chief of the station at Verbaire), and Mr. Milnes (inspector of the service), who were arraigned as guilty of homicide by imprudence, the indictment recapitulated all the circumstances attending the accident, enumerating the number and descriptions of the victims, and from the whole of the evidence taken, which was of a very contradictory nature, it appears, as before stated by us, that the accident was occasioned by the breaking of the axle of the *Morrey*, a four-wheel engine, which had most imprudently been placed before the *Bislat*, a six-wheel engine, of much greater power. The court announced that they would take time to consider their verdict, until Monday (this day).

NEW RAILWAY TURN-TABLES.—We have been requested to direct the attention of those of our readers who are interested in the working of railways, to a new table constructed on an entirely new principle, the invention of Captain Handcock, by whom it has been patented, and which has been introduced on the London and Birmingham, the Great Western, and other lines of railway. This table works on a pivot, instead of the old plan of rollers, by which nearly the whole of the motion is done away with, and the movements of the workings are not materially affected by any increase of weight. The table is supported by stops, constituting the inner rim with the base of the movable point on which the pivot works, any inequality in the pressure being relieved by the use of anti-friction discs. The cost of the new tables scarcely exceeds that of the old ones, and being fixed in their position, they are not liable to get out of repair. The best proof of their utility and economy, is the fact of their having been already introduced on nearly all the old lines; and we understand that the whole of the tables required for the great depot of the Great Junction and Manchester and Birmingham companies, at Crewe, are being laid down on this principle. Some of the turn tables have also been introduced at the goods stations of the London and Birmingham Railway, in Crewe depot, Birmingham, and here, we believe, given great satisfaction to the managers of the goods traffic.—*Michael Courtenay Herald.*

PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY.—Notice is hereby given, that the FORTH HALF-YEARLY DIVIDEND OF THREE AND A HALF PER CENT., declared at the Annual General Meeting of the proprietors on the 30th November last, for the six months ending 30th September, will be PAID at the office of the company, 51, St. Mary-Axe, or, to Irish subscribers, at the offices of Messrs. Richard Williams and Son, 25, Duncannon-street, Dublin, on and after Friday, the 16th December, between the hours of eleven and three each day.

BOLTON AND PRESTON RAILWAY COMPANY.—The directors of this company are prepared, under powers of their Acts of Parliament, to RECEIVE TENDERS for the LOAN OF MONEY, in sums of not less than £200, and for terms of three, five, seven, or ten years, and to GRANT MORTGAGES of the said undertaking, and of the rates, tolls, or amounts arising therefrom, as securities for such loans, bearing interest at the rate of 5 per cent. per annum. INTEREST WARRANTS, for the whole term for which the loan shall be made, will be delivered to the lenders along with the mortgages, and be made payable half-yearly, at the company's bankers in London, or Bolton, as may be preferred. The tenders are to express the sums and the term of years for which the same are proposed to be lent, and to be addressed to the secretary, at the company's office, Bolton.

By order of the board of directors, PETER SINCLAIR, Secretary.

BRISTOL AND EXETER RAILWAY.—Notice is hereby given, that, in pursuance of a resolution of the last General Meeting of proprietors, the directors of this company are ready to RECEIVE TENDERS for the LOAN OF MONEY, in sums of not less than £200, and for terms of not less than three, nor more than seven years, on security of LOAN NOTES under the corporate seal of the company, bearing interest at the rate of 5 per cent. per annum, payable half-yearly. Tenders, expressing the sum, the term of years, and the residence of the lender, to be addressed to the secretary. By order of the board of directors, J. B. BATHAM, Secretary.

ELKINGTON & Co., Patentees of the ELECTRO PROCESSES for PLATING and GILDING METALS, beg to announce that the following are their arrangements for meeting the increasing demand for their manufacture.

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SPECIMEN OF ASCENDING TABLE.

Age. First three years. Second three years. Third three years. Fourth three years. Remainder of life.

25 10 10 10 10 10

30 10 10 10 10 10

35 10 10 10 10 10

40 10 10 10 10 10

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By the Board of Constitution of the company all policies issued by them are declared to be INDEFEASIBLE and INDIVISIBLE, unless obtained by fraudulent misrepresentation.

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place the name of Mr. CRANE, and hope, before the publication of our next Number, to have it in our power to add other names to the list. It may be a matter of private interest to the patentees—it is a matter of indifference to the iron trade, for the article will always command a price with respect to its quality—but it is one of the first importance to the proprietors of mineral districts in South Wales, and to whom we more particularly address ourselves.

We are not in a position to offer an opinion on the comparative strengths of hot-blast and cold-blast anthracite, the experiments before us being under different circumstances, and with different gauges and weights. We shall be glad to receive information on this point. The question between Mr. HARTOP and Messrs. GRAM must needs stand over until we are in possession of the former gentleman's paper.

The resolve of the directors or proprietors of the United Hills Mining Company, to exclude the press, augurs no good. We are called upon, in our present Number, to notice the unfortunate position in which the affairs of the Carr Brea Mines are placed, which could never have been the case had there been a proper check on the accounts and proceedings of the company—had auditors properly done their duty—and had the reports and accounts been regularly published. It is alone the false notions entertained by parties embarked in adventures of this nature, that should they institute inquiry, or even ask plain questions, they, forsooth, will offend the parties they have placed in office, that makes them insensible to the advantages which would accrue, not only to themselves, but the mining community at large, by a proper check being placed on the administrative power. We merely record this instance of secrecy, as regards the United Hills Mining Company, that the attention of shareholders may be drawn to the subject. If they feel no interest, we can assure them we do not, for our columns are filled with equally valuable matter, but professing, as we do, to collate all information relating to mines and mining companies, and as our columns have been open to the mining reports of this company, in common with others, we have only to express our regret that the directors should have been so short-sighted as regards their own interests and that of their co-proprietors—while we shall continue to pursue our even course of rendering information where it is afforded to us, and at all times exposing abuses, whether arising from commission or omission.

The verdict given in the case of "CARPUE v. BRIGHTON RAILWAY COMPANY," is one which calls for a passing remark. The counsel for the company exerted themselves with a due regard to the fees which they received, and the jury, who were not "fed," gave a verdict, which we are not only glad to record, but who, by such verdict, expressed the opinion they entertained of the liabilities to which monopolists, such as railway companies, should ever be subjected. It may be true, that the accident was, to use the language of those learned in the law—"accidental;" but when we find, as in the case of that on the London and Birmingham Railway, on the 5th inst., that the train was composed of a second-class carriage, immediately after the engine, then two of the first-class, followed by a second, is it, we would ask, not absolutely necessary that some legislative measure should be passed for the security of the lives of the public? Why not have introduced, as so oft recommended, a carriage with wool, springs, goods—anything, indeed, so as to prevent the effects which must arise from the immediate shock?—However, not to enter on the disregard evinced for life on railways, we are glad to record the verdict of the jury in the present case, and have only one word more to say on the subject.

The directors of the Brighton Railway refuse to make reparation to the survivor of a party of four, who travelled on their line, two of whom were killed, and one, the daughter of the plaintiff, subsequently died, as it is asserted, from the consequences. The directors, doubtless, performed strictly the duties of their office, in protecting the interests of their co-proprietors, but, we would ask, did they exercise—did they evince, feelings of humanity? We close here, by the inquiry, whether, as the company resisted the claim of the living, they have ever shown any regard for the dead. Whether, in fact, the survivors of the families of those whose lives were sacrificed, have ever been attended to by those, through whom directly or indirectly (we care not which) their lives were immolated? Will the directors answer this, and can they do so with credit to themselves as men possessing any sense of honour, or the common feelings of humanity?

ARTIFICIAL ULTRAMARINE.—This article, which has lately been largely manufactured in France and Germany, possesses such brilliancy and power of colour, that it is found by paper-stainers more economical than cobalt, though the price of the latter is so much less. A new process for its manufacture has been discovered by M. Tisserand. The proportions of the various ingredients used are as follows:—Finely levigated pipe-clay, 100 parts; precipitated alumina (estimated in the dry, but to be used in the gelatinous state), 7; dried carbonate of soda, crystallised, 1075; flour of sulphur, 221; sulphate of arsenic, 5. These are to be carefully mixed, certain proportions at a time, placed in a covered crucible, and heated cautiously to a red heat, without melting. If the manipulation is carefully conducted, the colour will be brilliant and perfect; but if allowed to melt, it will be full of brown streaks.

COAL—THE CARBONIFEROUS FORMATION.—A lecture upon this subject was given at the Newport Mechanics' Institution, by Mr. W. Llewellyn, jun., of Pontypool (to whom we have been indebted, on several occasions, for valuable communications). After describing the stratification, he gave an historical description of the introduction of coal into common use, from which it appeared that the first public notice of it was in the reign of Henry the Third, who, in 1272, granted a charter to the inhabitants of Newcastle, giving them a license to work the mineral. It was again noticed in the reign of Edward the First, who, in 1306, prohibited coal from being burnt in London, owing to the nuisance of the smoke. He then noticed the different parties who had tried to substitute coal for wood, in the smelting of iron. He described the various coal fields of Great Britain, and their probable duration; from which it appears, that those at present known to be in existence are calculated to last 2600 years. His description of the formation of this mineral, and his observations on the transition of vegetable matter into perfect coal, were listened to with great attention, and the lecture on the whole gave general satisfaction.

ON THE PRINCIPAL CAUSES OF THE PRESENT DISTRESS.—Is an article in the *Northern Times*, by Mr. Nicholas Cawthorne, who styles himself a working man, the subject of the extensive cultivation of our waste lands is strongly recommended, as holding out the most important remedy for the present prevalent distress. After noticing the American tariff as being so framed, that for whatever provisions we buy of them we are obliged to pay, not in our manufactured articles, but in bullion. After noticing that during the five years ending 1841, we imported nine millions of quarters of corn, at an expense of twenty millions sterling (while this corn might have been grown at home), he proceeds to show that there are fifteen millions of acres of waste land in the United Kingdom, which might be successfully cultivated by division into 75,000 farms—that by the formation of 3000 new farms, mostly, with towns and villages, 55,000 houses would be actually erected, requiring an immense amount of labour, as well as timber, the produce of our forests, glass houses, iron bridges, and other manufactures; he calculates the employment of 230,000 more hands than can find work at present, and 58,000 more women in the coal and merchant services, and calculates that in fifteen years fifteen times this number will be in continual employment. The capital required for such a great national measure, he contends, though enormous, might be brought forward in this wealthy empire. He shows that the same ground which now only feeds one sheep, would be a state of cultivation feed two cows; and instances some land, on the borders of the moors in Yorkshire and Durham, which, being inclosed and cultivated, yielded double what the old cultivated areas did. Though the views of the writer in this case are rather sanguine, the subject is well worthy the serious consideration of the politician and the philanthropist.

ORIGINAL CORRESPONDENCE.

RELATIVE MERITS OF HOT AND COLD-BLAST IRON.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—Fully agreeing, as I do, in the correctness of the opinion avowed by your correspondent, "Alpha," and assented to by you, in the Editorial note appended to such letter, "that it is, at all times, desirable experiments should be made by other parties than those interested," I beg to say that I will, with pleasure, subscribe 50*l.* towards forming a fund for the payment of parties, hereafter to be fixed upon, to investigate the relative merits of the hot and cold-blast process, as applied to the manufacture of iron; but I know no gentlemen more capable of doing justice to the subject, if they could be induced to take the office upon themselves, than Mr. Fairbairn and Mr. Mushet—such investigation to include the relative cost of the manufacture—what veins of coal can be the most successfully applied, by the use of the hot and cold-blast process, in our different mineral districts—and the relative strength of the iron when manufactured both in its cast and wrought state. I have said 50*l.*, knowing that your proposition of 3*l.* per work would be wholly inadequate to meet the expenses of the proposed investigation, provided it is to be conducted with those precautions, and with that care, which would alone merit and secure the confidence of the public in the results to be arrived at.

Ynyscedwyn Iron-Works, Swansea, Dec. 7.

GEORGE CRANE.

BLACK-BAND IRONSTONE.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—From the communication made by the Messrs. Bailey to you, and inserted in the *Mining Journal* of last week, I have learnt, with surprise, which will, no doubt, be shared by others, that black-band ironstone had been, for a considerable term of years, occasionally used at the Beaufort and Nantyglo Iron-Works. Admitting this to have been the case, how is it that Mr. C. Bailey makes not the slightest allusion to this all-important fact in his note to me, dated the 27th of October last (by which he tacitly admits my claim)? and which would at once have prevented me from taking any further steps in the matter. I cannot for a moment suppose that it was done for the purpose of misleading, though it certainly had that effect, and of which the reader will best judge, by a perusal of the correspondence which has taken place upon this subject:—

Cireford, Oct. 21, 1842.

DEAR SIR,—I enclose you a specimen of a black-band ironstone, equal in quality to the best of the Scotch; it yields, in the state I have sent it, 70 per cent. of iron, and is found in property belonging to Bailey Brothers. I also enclose you the produce of 200 lbs., which weighs 210 lbs., and is equal, consequently, to 70 per cent. in the state of rich kishy iron. Should you wish to proceed further in the matter, I shall be pleased to render my services, on a fair and honourable understanding, that I shall receive in proportion to the advantages of the discovery, should it turn out to be of a beneficial nature. Quality is clearly ascertained, quantity only is wanting. I am, Sir, yours truly,

Crawshaw Bailey, Esq., Nantyglo.

DAVID MUSHET.

To this letter I received the following reply:—

Nantyglo, Oct. 27, 1842.

DEAR SIR,—I am favoured with your's of the 21st inst., only to hand last night, with very few specimens of iron ore, or black-band. I don't understand whether the same lies in Bailey Brothers' property, or in Bailey Brothers—The former, I hope; but your writing is not clear.—Please inform me at your convenience.

Yours truly,

To this letter the following reply was returned:—

Cireford, Nov. 4, 1842.

DEAR SIR,—I was from home when your note of the 27th of last month came to hand. I could have no motive for addressing you on the subject of the black-band ironstone, but from the circumstance of my having found upon property occupied by Bailey Brothers. I am, dear Sir, yours truly,

Crawshaw Bailey, Esq.

DAVID MUSHET.

I submit that, from Mr. Bailey's answer to my first letter (to the second I received no answer at all), it cannot be inferred that he had any previous knowledge of the black-band ironstone in the property of Bailey Brothers, or that he had used the same in the blast-furnace; on the contrary, the conclusion fairly to be arrived at, by a perusal of his letter, is, that he had, for the first time, received information from one of its existence and locality. There is another circumstance, difficult of explanation, connected with this subject. Previous to the communication of my letter of the 21st October, the newspapers were silent on the subject of this ironstone; but, immediately after, in one short week, they were filled with accounts of the value and importance of the recent discovery, but which could not mean to apply to that which was known and used twenty-five years before. On the whole, I consider I have a right to complain that the facts regarding the use of the black-band were not brought forward at the proper time and in the proper manner; and that there was a want of courtesy, on the part of Mr. Crawshaw Bailey, in taking no notice of my second letter, or of the subject generally, after the receipt of that letter.

Cireford, Gloucestershire, Dec. 7.

DAVID MUSHET.

COLD-BLAST AND HOT-BLAST IRON.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—Before finishing a letter to you, in answer to one from Messrs. Graham and Co., in your *Journal* of the 26th ult., I received a communication from the secretary of the West Riding Geological and Polytechnic Society, informing me that a paper was intended to be read at their meeting on the 14th inst., by Mr. Graham, in answer to mine read at their meeting on the 4th of July last; and as my paper was read there before appearing in your *Journal*, it will be needless that any paper intended for their transactions should be read before them, previous to any other publication of it, although Mr. Graham thought otherwise. This arrangement will also give me the opportunity of answering, through your *Journal*, any letters that may appear in the interim requiring my notice; and such may, probably, be numerous, as you anticipate many ironmasters having been led into the error, by saving about 12*s.* 6*d.* per ton, of reducing the value of their pig-iron from 25*s.* to 30*s.* per ton, as shown by your recent *Journals* in their prices current. These errors, if I mistake not, have, however, gone on so long, as now to require something more to correct their bad effects, than all the experiments which can be made by ironmasters on their own iron, or even of iron now made to be experimented upon by others, for the express object of enlightening the public on this particular subject.

Burnborough Hall, near Rotherham, Dec. 6.

HENRY HARTOP.

RELATIVE MERITS OF HOT AND COLD-BLAST IRON.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—An Anthracite Proprietor, in your paper of the 26th ult., writes at great length, to prove that the use of one vein of coal is as advantageous and economical as that of all the veins found in the formation; and, making use of a sort of special pleading, endeavours to make the public believe (for I suppose that is his object), that because in some places only one vein is workable, and that elsewhere two or three only are used in furnaces, therefore it is of no importance, to those situations where the different veins can be worked and used with greater economy together, which will be always the case where practicable, to make use of them all for iron-making. This appears to me very odd sort of reasoning for "An Anthracite Proprietor;" however, special pleading will not do with your readers. It is too obvious a matter for them not to perceive, that those iron works in which they can use all the veins, will have very much the advantage as regards the economy in manufacture. I feel certain that I am not under any mistake about the quantity of coal used, to make the ton of iron, generally consumed at the iron works in South Wales. In fact, the average quantity is three times a ton, or 67½ cwt.; so that, after deducting one-fourth for calcination, it will be found as near as needs be to what I stated it. But "An Anthracite Proprietor" does not state, that although the Ynyscedwyn furnace is making fifteen to sixteen tons per week more than those at Ynysfyllfa, that then the comparison is not just, from the pressure of blast being, as I am informed, 1 lb. on the square inch more at Ynysfyllfa than at Ynyscedwyn; and that there is every reason to suppose, that, with the same pressure, the furnace at Ynyscedwyn would make ten to twenty tons per week more than at present; so that, in fact, there is, besides the saving in fuel, under the same circumstances, at least to be expected, an increase of 25 or 20 tons per week in favour of hot-blast.

"An Anthracite Proprietor" wishes for information as regards the number of hot-blast stoves that have been pulled down or put up at Ynysfyllfa and Ynyscedwyn during the last year; he, no doubt, is aware, that the stoves at Ynysfyllfa are pulled down, and advertised to be sold cheap in your paper, although the produce of this may be very much doubted, before it has been shown, that an iron manufactured at a greater cost can realise anything more in the market; but it does not seem to be from any fault in the stoves themselves that they are subjected to this summary process of sale, as I am informed they are on a very improved principle, and some of the same kind have been in use at Ynyscedwyn, I am told, for

more than twelve months, without there being any necessity to touch them—in fact, that the expense of the repairs of stoves upon this plan is very trifling. From what Mr. Mushet states in his report, of the improved quality of the Ynyscedwyn iron, it remains to be seen, whether there is a sufficient difference in the iron made by the cold-blast to make up for the loss in the process.

ANOTHER ANTHRACITE PROPRIETOR.

Swansea, Dec. 8.

COMPARATIVE ADVANTAGES OF HOT AND COLD-BLAST IRON.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—While the comparative advantages of hot-blast in the smelting of iron is a question of so much interest to those engaged in this branch of trade, the following statement of the results of experiments in one of our Scotch furnaces, wrought under each system for nine weeks successively, will, at least, show how little probability there is of the ironmasters in this part of the kingdom again resorting to the use of cold air. In the case referred to, the object was to meet a partial demand for cold-blast pig-iron, and to ascertain to what extent the difference of cost could be obtained from the trade. In order to secure a superior article, coke was chiefly used under both trials, which accounts, in some measure, for the comparatively large consumption of fuel. In other respects the same quality of materials was employed throughout the whole process; the ironstones were clay-band. It was with some difficulty the cold-blast pig-iron could be sold at 30*s.* per ton above the price of the same article made with hot-blast, which was little more than the cost of the extra consumption of coal, without compensation for the small produce and inferior quality.

Dec. 5.

SCOTCH.

	Materials consumed.			Produce in pig-iron.	
	Coal.	Ironstone.	Limestone.	Tons.	cwt.
Cold-blast	2844	279	412	221	181
Hot-blast	1858	1229	427	287	19
	Materials per ton of pig-iron.				
Cold-blast	12.41	1.23	1.89		
Hot-blast	6.49	4.32	1.52		
	Quality of produce.				
	Tons cwt.			Tons cwt.	
Cold-blast	{ No. 1, 2 19		Hot-blast	{ No. 1, 2 17	
	{ No. 3, 11 1			{ No. 3, 8 17	
	{ No. 5, 20 17			{ No. 5, 120 10	
	221 181			287 19	

IMPROVED VENTILATION OF MINES.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—In the *Mechanics' Magazine*, of the 1st October, is described the principle of "certain improvements in the construction and application of rotary engines," for which I have taken out letters patent; to one branch of those improvements, may I beg to call the attention of those interested in mining affairs, through the medium of your valuable *Journal*—viz., to an improved ventilation of mines. I have recently had constructed and applied in a colliery, belonging to Earl Fitzwilliam, a ventilator, on the principle described in the above *Journal*. It is a wheel, four feet in diameter, six inches deep, and having ten vanes, or arms, with the outer extremity at an angle of forty-five degrees with the plane of motion; upon the periphery of the wheel are a number of small buckets to receive the jet of water, which is the power employed to give motion to it. The wheel is fixed in the circular opening of a vertical wooden frame, placed near the bottom of the air-shaft; the stream of water, which moves the wheel, falls down the shaft, from a cistern fixed in the side, twenty-six yards from the bottom. The cistern will contain fifty-four gallons, and, at present, the supply fills it in four minutes twenty seconds, so that the available power to turn the wheel is the weight and momentum of about twelve and a half gallons of water per minute, with a head of seventy-eight feet. The water from the cistern is conveyed to the wheel through a lead pipe, one and a half inches in diameter, and issues thereon through a conical jet, three-eighths of an inch in diameter, which is rather too large for the supply of water at present falling into the cistern. So long as water remains in the cistern, the issuing jet is sufficient to turn the ventilator 136 revolutions per minute, which is reduced to 116 per minute when partially working upon air. In order to provide for a larger supply of water falling upon the wheel (as it is thought, after as long a dry time, that the present supply is nearly a minimum), the discharge pipe, a, through the bottom of the cistern, reaches nearly to the top, and a movable cap, b, fits over it, which is balanced on a lever, c, and can be regulated to any height by a wire, d, extending to the bottom of the shaft; it, therefore, acts as a syphon, and gives the stream an intermittent character, more or less frequent, at pleasure, as, when the water in the cistern is below the bottom of the cap, the air getting underneath, stops any further outlet until the cistern is again filled, when it resumes with full force, as before.

With regard to the quantity of air which passes through the ventilator, according to the principle described in the *Mechanics' Magazine*, and which I have every reason to believe is perfectly correct—a cylinder of air, having a base of four feet diameter, and height the circumference of the wheel (4×3.14), will pass through at every revolution. This cylinder is equal to 157½ cubic feet, so that, with a stream constantly issuing from a three-eighth jet, with a head of seventy-eight feet, upwards of 21,000 cubic feet of air would be withdrawn from the mine every minute; or, in this case, with the present supply of water, upwards of 18,000 cubic feet; or (to state the case differently), in the first instance, the air passes through the ventilator at the rate of 28½ feet, and, in the last, of 24½ feet per second. That the air passes through in lines perpendicular to the base, and at uniform velocity at any point of the wheel, is clearly shown, when holding a piece of lighted tallow rope within the influence of the wheel, by the appearance of the smoke and flame; or, if the rope be allowed to touch the wheel, by the direction of the sparks, which are thrown off with great velocity, in lines perpendicular to the wheel, for a considerable distance.

The advantages of this method of ventilating over the "furnace plan" (especially, as in this instance, where the power costs nothing), will be at once obvious to all acquainted with mining affairs, for, when once set in motion, its action may be said to be perpetual, and will need no further attention than occasionally a little oil to the axle. It removes all danger to which a furnace is liable from contact with the carburetted hydrogen; and what is of more importance, as being, perhaps, the greatest source of accidents, it removes the danger arising from the carelessness or neglect of those appointed to attend the furnaces, and its cheapness and simplicity can scarcely be excelled.

HEN. BRAM.

Westworth, Nov. 24.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—After writing the above letter, I forwarded it to Milton, for Earl Fitzwilliam's personal, who has kindly returned it to me, with the accompanying testimonial. By inserting these in your valuable *Journal*, you will confer a great obligation on me, Sir, your very obedient servant,

Westworth, Dec. 1.

HEN. BRAM.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—Before I left Westworth the apparatus described in Mr. Bram's letter had been tested, and having myself seen it in operation, I can bear witness to its efficiency. Of its superiority to a furnace, there cannot be the slightest doubt.

I am, Sir, your very faithful servant,

Milton, Nov. 28.

FITZWILLIAM.

SMOKE PREVENTION—C. W. WILLIAMS'S PATENT.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—It has been a matter of surprise not only to myself, but many other subscribers to your *Journal*, to find that the very valuable invention of Mr. C. W. Williams appears to have lost all interest with you, and your correspondents, since the discussion (if such it could be called) between Mr. Hall and that gentleman, which I regard as one of the most judicious and correct brought to a close, and which appears to have closed your columns to the further consideration of the question, which is so much to be regretted. I do not speak with reference to Mr. Williams's interest, but to that of the public, who not only find an interest in the question, but whose safety is seriously concerned in the adoption of one or the other, although not involving an outlay of capital. I should not have noticed this matter to you at the present moment, but that I had my attention drawn to the question of the patent of Mr. C. W. Williams, in a Liverpool paper, in which a notice is also taken of Mr. Joseph Williams's improvement in the engine of the *Crompton*, which the former gentleman contends is a direct infringement of his patent, and which I verily believe; for (in one No. 1, C. W. Williams's words) it appears the sole object of his patent, is the

meeting, whereas, now the time is gone by, and before I get the information, I must needs stop six months for another meeting, when it is too late to complain. I do think, Sir, if you were to direct the attention of the general class of shareholders in all companies, to the advantages which would attend the publication of the reports before the meetings, you would at once establish the principle, for the directors can have no excuse, more especially if it be the wish of the shareholders at large. I do not think it necessary to refer to those particular companies in which I am engaged, for I have every confidence in the directors, but, after all, "prevention is better than cure."

Northampton, Dec. 5.

WORKING PLANS.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—Some months ago I put a request in your valuable paper, that some of your practical correspondents would favour me with the best method of drawing and keeping up the horizontal or working plan of a mine, and also showing the use of such a plan, and the great disadvantages attendant on the too common practice of conducting the operations of a mine without it. For the sake of a large majority of your readers, who are interested in mining, but who have had no practical experience, a few words in explanation of the plan and sections of a mine will not be out of place; for, I presume, Mr. Editor, that you have often heard persons complain of the difficulty they have found in comprehending the state of the operations of a mine, from an inspection of the drawings, although accompanied by every possible explanation. The confusion generally arises from these persons not understanding what part of the workings have a true appearance on each section, and what is imperfect; in order to remove this, it may be well to describe the point of view in which each drawing should be taken—viz.:

1. The working plan.
2. The longitudinal section.
3. The transverse section.

1. The working plan is a horizontal representation of the operations, and is what surveyors call a bird's-eye view, or, rather, the examiner must suppose the ground to be transparent, and that he can walk over and look down on every part of the workings. 2. The longitudinal section—here the observer must suppose the ground to be cut away, and that he has a panoramic view of the workings at right angles with the course of the levels. 3. The transverse section—here he must imagine himself placed at one of the extremities of the drivings, with his sight directed over or through their course. This being understood, the observer will soon comprehend that, in the working plan, all the levels will show their exact course and length, whether they have been driven on the course of the hole, or as cross-cuts—the position only of the vertical shafts will appear on this plan, and the base only (or the extent diverged from the vertex) of the underlying or oblique shafts and winzes. The longitudinal section will truly represent the whole depth of the downright shafts, the ground that has been stopped or worked away between the levels and the dip of the courses of ore—these are the only operations that can be truly shown on this section. The transverse section will show the declination and length of the inclined shafts and winzes, and the latitudinal extent of the cross-cuts, or right angle drivings. The great utility of the working plan especially, and my opinion respecting the best method of constructing and keeping it up, I hope to forward next week.

Callington, Dec. 5.

THE TRESAVAN MINE—TREVISKEY AND BARRIER SETT.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—It has often been matter of surprise to me, that no one has aided you, as they ought to have done, for their own sakes, in exposing the abuses of mining. Cornishmen are proverbially mysterious, and would sooner tell the secrets of their domestic hearths than those of their "bals." If a Cornishman wants to "bring out a mine" openness and candour seem the principal ingredients of his character, and he draws you into calculations that lead, if you will believe him, to El Dorado itself, but, having succeeded in selling his shares, the Cornish veil of secrecy is thrown over his proceedings, and the only knowledge the out-adventurers can obtain, as to the existence of his mine, comes through the medium of your Journal in the shape of periodical calls upon his pocket; and that this unalloyed secrecy mostly injures the Cornish themselves, it may be my province hereafter to show, but my object in now addressing you is to enlist your aid in a cause that needs it.

Adjoining Tresavan Mine, to the east, there is a sett called Treviskey and Barrier, originally a part of Tresavan, but apportioned, about two years ago, to the Tresavan adventurers, according to the interest they held in the latter. Mr. Octavius Smith and party, who were the opponents of Captain Teague's party, in the well-known dispute of Trethellan, were—and, as they consider, very unjustly—kept out of this apportionment. The Barrier is a piece of ground five fathoms in width, between Tresavan and Treviskey, belonging to the latter, and several of the deep levels in Tresavan are driven home right to the Barrier, and it was the object of all, as it is now the wish of the majority, to work through Tresavan shaft, and with the aid of their machinery, so that the riches might be come to at once, to the mutual advantage of both; to this the Tresavan adventurers agree, with the exception of Mr. Smith and party, who will not allow it unless they have the same interest in Treviskey which their co-adventurers had. Mr. Smith has stated his claim, the out-adventurers agree to it, and have been many months trying to arrange the question amicably, but in vain, as one party in Cornwall holds out, preferring to have a shaft sunk from the surface in Treviskey, and so exclude Mr. Smith and party. As many persons express surprise at the opposition of this one party (I will not mention names at present), perhaps I can solve the mystery. If Treviskey be not worked through Tresavan very shortly, a shaft must be sunk from the surface, or the sett will become forfeit, and this party will drive off an arrangement until the shaft will be the only chance of securing the sett, for the shaft will take from three to five years sinking, at a cost of 50,000l. to 60,000l., and, as the majority of shareholders are out-adventurers, this opposing firm view with extreme fidelity the prospect of a great part of the sum visiting their own pockets for the supply of materials, which they vainly imagine the Londoners would be green enough to allow. One hour's discussion with men of business would settle the affair, but it has been months in agitation, and is as far off settlement as ever, and I am very positive many parties in London would feel obliged for your advocacy, and giving the spur to the sluggish manner in which the affair is managed. The party in Cornwall say they are not averse to an amicable settlement—Why, then, do they not prove their assertion, by putting their shoulders to the wheel?

Regent-street.

(The letter of our correspondent having been mislaid, we have to apologise to him for the delay in its insertion.)

BOLANOS MINING COMPANY.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—The financial account in the directors' report, December 31st, 1841, page 11, states that the balance to the debit of the cashier at Bolanos, and others in Mexico, amount to the sum of 345,594 dollars, and the stock of ore then remaining on hand to be 27,985 carats. These ore, at the average net produce in the year 1841, the cost of reducing being deducted, will give 125,000 dollars more—together, 370,000 dollars. This large amount seems to have been lost sight of, till the receipt of Mr. Bolanos's letter from Bolanos, dated 18th September, in which he says:—"I have sent from this district 5000 marks of silver to Guadalajara (to be coined), and, perhaps, shall be able to send an equal quantity by the beginning of November."—so that, in answer to the inquiry, from whence a Bolanos could 18,000 marks (or 90,000 dollars) be obtained, the above is a satisfactory reply.

Cardiff, Dec. 5.

CARIN BREA MINES—MANAGEMENT.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—I wrote you on the 22d ult., but no notice has been taken of my letter, either by yourself or correspondents. Perhaps, there may be reasons for the silence observed, but, as my letter required a reply, I can only attribute the silence to your case—viz., the impossibility of giving one of a satisfactory nature. I said, in my letter, that reports were rife in this neighbourhood, whereas it appears, in London, you are perfectly innocent of any late proceedings; perhaps the adventurers are unconscious of the change in management, and the cause why; also, of the appointment of a committee in Cornwall, and the cause why; and who the committee are. I beg, therefore, for your information, to state, that it is strongly rumoured here, that Mr. Michael Williams, Mr. Frederick Hill,

and another, are appointed as a committee in Cornwall—that another committee is to be in London—that Captain Joseph Lyle is in London, helping the committee there, we suppose, for there are some grounds for believing his assistance will not be required here. Remember, I merely speak from report—the truth will come out, and, when privacy can be no longer maintained, perhaps you will then inform us how well this concern has been managed.

Redruth, Dec. 7.

DURHAM COUNTY COAL COMPANY.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—I rejoice to see that "An Original Proprietor" has again put you into motion; it is peculiarly appropriate, since another half-yearly meeting is fast approaching, and it begins to be whispered that a call is under consideration. I do not mean to take up your columns with a long letter, but to submit to your judgment, and the consideration of my brother shareholders, a similar course of proceeding as that by which we lately achieved the removal of one material incubus from our concern—viz., that the shareholders in this district (being the nucleus of the company) should hold a meeting, at which to depute three intelligent men to proceed to the collieries and the board-room, and to make such inquiries as may satisfy them what sort of motions ought to be submitted to the public meeting. This, in my opinion, will do more to enlighten the company than the manufactured reports usually read, and which parties are utterly unable to digest or discuss, especially if your Northumberland proprietor will favour the said deputation with the "brief notes" of which he speaks. We have only to read the accounts of recent railway meetings to satisfy us that popular investigation is the only corrective to mismanagement, and out of which no sort of harm can accrue. Trusting, Mr. Editor, that you will also give us your aid and friendly advice in the matter.

Fork, Dec. 6.

I am, Sir, your's, &c., A SHAREHOLDER.

CORNUBIAN MINING COMPANY.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—As I am informed the three directors in this company enjoy salaries of 100l. each, and as Mr. Stainsby, who is one of the number, has also 120l. in addition, as secretary, I think it behoves the shareholders to calculate the per centage on the shares of which the company is constituted, so as to see the effect it has on calls and dividends. I think at the present moment, when it requires the practice of economy in every department, that such a sum is far too great for the services rendered. I do not impugn the management, but I do object to the pay if my information be correct.

Baltic Coffee-house, Dec. 9.

[We know nothing of the remuneration made to the directors or secretary. If the accounts of the several companies were published, as well as their reports, we think it would be highly satisfactory, to the shareholders at least.]

GREAT WESTERN RAILWAY.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—In your Journal of the 26th ult. a letter appeared from Mr. Venn, of Bristol, making it appear probable that the next dividend will be at the rate of 8 per cent. per annum, with a balance for the following six months of 7827l. Now, having gone into the thing again and again, I cannot make out that there will be the wherewith for a 6 per cent. dividend; and, before giving my estimate, I would remark, that 7000l. must be deducted from this six months' receipts, on account of the August meeting in Bristol. To show the fair receipts, that the income-tax must be deducted to give the profits, that a large balance should always remain from the December account for the following one in June, and that 7500l. are due to the Bristol road, I would also inquire whether the last lot of new engines will be charged in the general or revenue account; and if to the general account, I ask, if this account is always to remain open? My estimate is as follows:—

Received for 20 weeks	310,379	Working expenses, 27 p. ct. only	210,870
" " " " " " "	4,428	Rents and taxes	34,000
Balance from June	5,500	Interest (probably more)	30,000
Deduct for the Bristol meeting	7,000	Depreciation	10,000
	434,307	Dividend, at 8 per cent. per an.	24,700
Wanting for 6 per cent. div.	715	Income tax	3,700
Total	435,022	Total	434,307

I have barely sufficient for the 6 per cent. dividend—no balance (instead of 11,000l., as at this time twelve months) for the next six months—nothing for the Bristol company—and no charge for engines. Hoping you will find room for this in your next Number, I am, your's, &c.

Dec. 7.

A CONSTANT READER.

THE "YANKEE GEOLOGIST."

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—In your Journal of the 17th September last a correspondent relates the wonderful performances of an extraordinary piece of mechanism, as witnessed by him at Brooklyn, in the state of New York. Should any of your readers be aware of the existence of such a machine in England, and will inform me, through your columns, where it is to be seen, they will confer a favour on

London, Dec. 3.

A CONSTANT READER.

NEW THEORY OF APPLYING STEAM TO AN ENGINE.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—Mr. Goodlet has expressed a wish that I would "grapple" with the question at issue between us, as to the "specific case of the condenser referred to." I beg to inform Mr. Goodlet that, in the first place, I am not an engineer, and in the next place I cannot sufficiently comprehend his theory to "grapple" with it; indeed I was more struck with his sweeping denunciation against condensation, than with the particular method he adopted to explain his theory, and it was to that I more particularly referred in the observations I made. I will, however, try to explain my own ideas of the benefit derived from condensation and the object of its application, and thus Mr. Goodlet, who, of course, understands his own theory, will be able to determine in what respect our views differ.

The pressure of steam in a boiler, which would indicate by the safety-valve a force of 10 lbs. to the square inch, does, in reality, exert a force equal to about 24 lbs. to the square inch; but this additional power is neutralized by the weight of the atmosphere pressing upon the safety-valve. Before the condensing apparatus was introduced as part of the steam-engine, the same opposition to the full power of the steam was experienced in its application to the working of that machine, so that no more power than 10 lbs. to the square inch could be obtained from it, in consequence of the counteraction of the weight of the atmosphere in the progress of its work. In order, however, to make the whole power of the steam available, the process of condensing the steam, so as to form a vacuum in the cylinder, was introduced, and thus the whole power of the steam was exerted on one side of the piston, whilst on the other side, by this means, all resistance was got rid of, and the object was attained; that is, the steam would exert a force in the cylinder equal to the 10 lbs. indicated by the safety-valve, and the additional 14 lbs., or nearly so, the weight of the atmosphere; in fact, by this improvement, the engine, without any addition being given to the force of the steam, was increased in power in the proportion of ten to twenty four.

Now it would appear to any person who looked at, what seems to be, this plain and simple effect produced by condensation, by which the resistance which was previously experienced was got rid of, that the more perfect the condensation of the steam, the more perfect would be the vacuum, and, consequently, the greater certainty in the removal of all resistance to the working of the piston in the cylinder; but Mr. Goodlet tells us that the condensation may be too perfect! This is a new and somewhat startling proposition to make to the dealers in steam, and I am much inclined to think that they will look at it as being very singular. Mr. Goodlet suggests, that, for the purpose of effectually excluding the air from the condenser—"the condensation shall not be carried further than water at 212° temperature, the steam from which will oppose the entrance of the air by crevices, from imperfect workmanship, in the cold condenser." I presume that Mr. Goodlet intends to say, that steam from water at 212° of temperature, is equal in power to the weight of the atmosphere, and, consequently, it will resist its entrance into the condenser through crevices. This may be perfectly true, but will Mr. Goodlet have the kindness to inform us what necessity there is for crevices through which the air might pass? Would it not be a much better mode of getting rid of this evil by making the work free from crevices, and by making all parts of the condensing apparatus perfectly airtight? Mr. Goodlet admits the necessity of excluding the air from the condenser; but will he have the goodness to explain wherein the difference consists between a pressure by the atmosphere, and a pressure by steam? It appears to me that his mode of condensation would be totally impotent; indeed, it would be getting rid of the atmospheric resistance, to supply the place by a steam resistance; for if such a pressure of steam be retained in the condenser, how is the vacuum to be produced?

Mr. Goodlet does a good deal in oppositions, and he then attempts to explain his morning as to the idea of the condenser being overpowered by

the steam from the boiler, by supposing a steam-boat to be so proportioned as to maintain a rate of thirty strokes per minute; and then, in consequence of the condenser being so overpowered, he jumps to the conclusion, that this can only be remedied by reducing the rate of the engine to twenty-five strokes per minute. Now, I have always understood that there are certain proportions observed between the different parts of the steam-engine, and that the cylinder, air-pump, and condensing apparatus, bear such an approximation to each other in size, as shall enable each to perform the duty required of it—that is, if the cylinder be of a sufficient capacity to work at the rate of thirty strokes per minute; the other parts are quite equal to do all that is necessary to keep up that rate. How, then, can the condenser be overpowered by the steam? or how can it be made to appear that condensation can be carried too far, and a positive loss be thereby produced?

Mr. Goodlet explains his meaning as to the use of his "education throttle valve," by introducing an hydraulic engine; and he supposes "a 3-inch diameter supply of water, at a 150-foot pressure, to be applied to work an engine with a piston of a given diameter." He tells us that "the way to turn this supply to the greatest advantage would be to have an intermediate vessel, that would contain two or three fills of the cylinder, and to allow the water from it to flow to the cylinder with a large passage, so that the full effect of the 150-foot pressure may be on the piston at every stage of its motion." Will Mr. Goodlet have the goodness to inform your readers how this intermediate vessel is to produce any kind of advantage to the machine? I have always understood, that the power of this kind of engine depends upon the quantity of water with which it is to be put in motion, and the height of the column through which it is brought to operate upon the piston; and, I believe, that I am perfectly safe in adopting this view of the question. If, then, the supply of water be no more than will pass through a column of three inches diameter, no possible advantage can arise from such an intermediate vessel. The supply to the engine will be no more than a column of three inches diameter will afford; and, whether that be conveyed through a column of that diameter, or one of three feet diameter—whether it be admitted into the cylinder through a 3-inch valve or a 6-inch valve—whether there be an intermediate vessel or no such vessel—the effect will be the same; the piston will only move at such a rate as the supply of water will fill the cylinder, and that must, at all times, and under all circumstances, be limited to the quantity which is admitted into the column at the top of it. This is one of the most simple methods of using water power now known, where the situation is suitable to its introduction; and one of immense power has lately been erected in a mine near Bakewell, in Derbyshire, than which, I understand, nothing can be more perfect in its operation, or more effective in its application, and yet it has not been found necessary to introduce such an intermediate vessel as Mr. Goodlet alludes to, for the purpose of turning the supply to the greatest advantage.

I am not aware that I said anything which would imply that Mr. Goodlet was "the only person who has dared to call in question the advantages of condensation to form a vacuum"—indeed, it would be the height of presumption, at this period of invention and experiment, of theory and of fancied improvement, to insist that only one individual could be found to condemn the present construction of the steam-engine. I merely took Mr. Goodlet's own condemnation of the present system of condensation, without any reference to what others might think about it; and I am not at all the less disposed to think him wrong, although he has informed us that a person of the name of John Scott Russell has made a somewhat similar charge against the practice alluded to, particularly as the results have proved the advantage of its adoption. Mr. Goodlet further informs us, that five years ago he "used the freedom to write to the Admiralty, the General Steam Navigation Company, and Mr. David Napier, on the subject;" but this does not appear to us to mend the matter. It would seem strange indeed, that, whilst every effort is being made to improve the modes adopted for producing evaporation, and also economizing the use of steam, as well for the improvements of the steam-engine, the parties above-named should decline to adopt his views, if they are calculated to produce such wonderful advantages as he states, would arise from them. People are not at this time very backward in availing themselves of whatever may be likely to promote their interests, and to prove beneficial to them; and yet Mr. Goodlet informs us that, although he communicated his views to those parties five years ago, they have not adopted them. What are we to believe the cause to be of their not attending to his theories? Certainly not because they believe them to be improvements upon condensation. But Mr. Goodlet also tells us that, were low pressure steam applied effectively in the way he suggested, he felt assured that it would be found to be more economical as to fuel, and attended with less sacrifice of human life, than the dangerous and expensive plan of working high pressure steam expansively. He, nevertheless, admits, that great advantages have been experienced in Cornwall by working expansively; but he asks—"may not these advantages be traced to the circumstances of steam of high elasticity supplying a remedy for small steam ports and valves, whilst the cutting off the steam being rendered necessary by the contracted size of the condensing apparatus in use at present?" I confess that this is to me such a complete contradiction in itself, that it would almost seem that Mr. Goodlet feels himself forced to admit his whole theory to be wrong, and yet is determined to make it appear that he is right.

His first mistake that low-pressure steam is most economical, and then admits that much advantage has resulted from the adoption, in Cornwall, of high-pressure steam worked expansively. Now, he is aware that both cannot be correct. Low-pressure cannot be economical, if great advantages have been produced by the adoption of high-pressure steam; but having admitted each to be the case, he attempts to qualify it by asking, whether it is not produced by supplying a remedy for small steam ports and valves. If it be so, what becomes of his condemnation of small steam-ports and valves, and what becomes of his "education throttle valve," which he proposes as a remedy? But the working expansively is also the consequence of the small condensers at present in use. How does he make this out? There is steam enough used to produce the stroke of the engine, and that steam is condensed; what more would he require? Cornwall is a very awkward place for Mr. Goodlet to appeal to, in support of his condemnation of condensation. Let him go into the mining districts, and make inquiries; and he will find, that the more perfect the condensation, the greater is the duty the engine will perform—that high pressure steam, worked expansively, is decidedly preferable to low-pressure steam—that economy is produced thereby, as is proved by the improvement in the work performed by the consumption of a bushel of coal—and that what I state is not a mere series of theories, but the result of the experiments made by the engineers in that district; and to whatever cause he may be pleased to attribute these results, he will come away with the conviction, that a good condensing engine, in which perfect condensation and a perfect vacuum can be produced, is the best machine, and that it can be more economically worked by high pressure steam, than by low-pressure steam.

London, Dec. 8.

ANTI PUFFERS.

IMPROVEMENTS IN THE MANUFACTURE OF IRON.

(SPECIFICATION OF MR. CLAY'S PATENT.)

The first part of these improvements consists in manufacturing malleable iron from iron ore, by combining with the latter a certain proportion (about 20 per cent.) of carbonaceous matters, and puddling it in a reverberatory furnace, without having previously melted it in a blast furnace as usual. The iron ore, or stone, calcined or not, as may be preferred, and containing 50 per cent. of iron, is ground by a pair of mill stones, until it is sufficiently small to pass through a screen or sieve, the meshes of which are thirty-six to 40 in. It is then mixed with from 20 to 30 per cent. of coal, coke, charcoal, post, anthracite, or any other carbonaceous matter, reduced to the same size, by grinding and screening, and thrown into a puddling furnace, prepared to receive it. The mixture is stirred every five minutes, until it prevents the appearance of blooming metal, by the hottest fire combining or welding together; at which period of the process, the furnace is raised to its greatest heat, and the iron is balled, and removed to the hammer or squeezer, as usual. The patentee claims that he does not consider it advantageous to use iron ore, containing less than 45 per cent. of iron, for the purpose of making malleable iron, by means of his invention; and he gives as a general rule, for the addition of carbonaceous matters to the ore, that when one hundred parts of the ore contain fifty parts of iron, thirty parts of carbonaceous matters should be added to it; and if the ore contains more than fifty parts of iron, then more carbonaceous matters must be used, in the proportion of one part to every two of each extra parts of iron. It is preferred to carry the flow of the puddling furnace into a chamber, charged with ore and carbonaceous matters, which will be thus heated by radiation for puddling, whilst another charge is being operated upon in the furnace. The second improvement consists in a mode of manufacturing malleable iron, by means of the above process, combined with the use of pig or cast iron, which is mixed with the ore in equal quantities. If a single bedded furnace is used, the best time for applying the pig or cast iron, is when the ore and carbonaceous matters have become well heated; but if a double furnace is employed, the iron is added when the ore and carbonaceous matters are raised up to the working level.

The patentee claims—1. The mode of manufacturing wrought or malleable iron, in a reverberatory furnace, from iron ore, by combining with it 20 per cent., or upwards, of carbonaceous matters.—2. The mode of manufacturing wrought or malleable iron, from iron ore, in a reverberatory furnace, by combining with it 20 per cent., or upwards, of carbonaceous matters, with pig or cast iron.—Newcastle-on-Tyne Journal of Arts.

THE AMERICAN WARE, AT GREENGLASS.—The water from this well now contains in run perfectly pure, and of the same temperature as at first (from 50° to 52° Fahr.). Mr. Mallet has taken great pains to ascertain the exact quantity which flows from the aperture, which is now stated to be 6750 gallons in twenty-eight seconds.

CURRENT PRICES OF STOCKS AND SHARES.

The prices of the funds have experienced but little fluctuation during the week. Consols fell off yesterday at 94½, 95; Bank Stock remains the same, and no transactions of importance have taken place in other securities. Exchange Bills have been in demand, having been done at 100. Our quotations give the last prices up to period of going to press.

STOCK EXCHANGE, Saturday morning, Twelve o'clock.

Consols Money, short	Dutch, 2½ per Cent., 1873
New Account, 94 94	Portuguese, 5 per Cent., 28 8
New 74 per Cent., 94 94	Ditto, 5 per Cent., 28 8
Reduced 24 per Cent., 100 1	Russian, 5 per Cent., 17 1 1/2
Long Annuities, 12 1/2 1/2	Spanish, Active, 5 per Cent., 18 1/2
Bank Stock, 172 1/2	Ditto, 5 per Cent., 28 8
Exchange Bills, 100 100	Chile, 5 per Cent., 28 8
Belgian Bonds, 5 per Cent., 100 1/2	Colombian, 5 per Cent., 21 1/2
Small, 5 per Cent., 99 7/8	Mexican, 5 per Cent., 20 1/2
Danish, 5 per Cent., 94 1/2	Pera, 104 1/2

The premium on gold at Paris is 12 per mille, which, at the English Mint price of 31.17s. 10d. per ounce for standard gold, gives an exchange of 25 1/2, and the exchange at Paris on London at short being 25 1/2, it follows that gold is 7/8 per cent. dearer in London than in Paris.

By a notice from Hamburg, the price of gold is 431 per mark, which, at the English Mint price of 31.17s. 10d. per ounce for standard gold, gives an exchange of 17 1/2, and the exchange at Hamburg on London at short being 17 1/2, it follows that gold is 1/8 per cent. dearer in London than in Hamburg.

The course of exchange at New York on London is 106 per cent., and the per of exchange between England and America being 106 per cent., it follows that the exchange is 1/8 per cent. dearer in London than in New York. But the quoted exchange at New York being for bills at 60 days' sight, the interest must be deducted from the above difference.

BANK OF ENGLAND—Quarterly Average of the Weekly Liabilities and Assets, from the 10th of September to the 30th of December, 1882, both inclusive.

LIABILITIES	ASSETS
Circulation, £10,000,000	Reserves, £21,000,000
Deposits, £8,000,000	Buildings, £9,000,000
	Dorming-street, Dec. 3.

From our own correspondents.

LATEST PRICES OF IRISH STOCKS.—A 3 per Cent. Consols, 94½, to 94½; 3½ per Cent. Consols, 95½, to 95½; 4 per Cent. Consols, 96½, to 96½; 4½ per Cent. Consols, 97½, to 97½; 5 per Cent. Consols, 98½, to 98½; 5½ per Cent. Consols, 99½, to 99½; 6 per Cent. Consols, 100½, to 100½; 6½ per Cent. Consols, 101½, to 101½; 7 per Cent. Consols, 102½, to 102½; 7½ per Cent. Consols, 103½, to 103½; 8 per Cent. Consols, 104½, to 104½; 8½ per Cent. Consols, 105½, to 105½; 9 per Cent. Consols, 106½, to 106½; 9½ per Cent. Consols, 107½, to 107½; 10 per Cent. Consols, 108½, to 108½; 10½ per Cent. Consols, 109½, to 109½; 11 per Cent. Consols, 110½, to 110½; 11½ per Cent. Consols, 111½, to 111½; 12 per Cent. Consols, 112½, to 112½; 12½ per Cent. Consols, 113½, to 113½; 13 per Cent. Consols, 114½, to 114½; 13½ per Cent. Consols, 115½, to 115½; 14 per Cent. Consols, 116½, to 116½; 14½ per Cent. Consols, 117½, to 117½; 15 per Cent. Consols, 118½, to 118½; 15½ per Cent. Consols, 119½, to 119½; 16 per Cent. Consols, 120½, to 120½; 16½ per Cent. Consols, 121½, to 121½; 17 per Cent. Consols, 122½, to 122½; 17½ per Cent. Consols, 123½, to 123½; 18 per Cent. Consols, 124½, to 124½; 18½ per Cent. Consols, 125½, to 125½; 19 per Cent. Consols, 126½, to 126½; 19½ per Cent. Consols, 127½, to 127½; 20 per Cent. Consols, 128½, to 128½; 20½ per Cent. Consols, 129½, to 129½; 21 per Cent. Consols, 130½, to 130½; 21½ per Cent. Consols, 131½, to 131½; 22 per Cent. Consols, 132½, to 132½; 22½ per Cent. Consols, 133½, to 133½; 23 per Cent. Consols, 134½, to 134½; 23½ per Cent. Consols, 135½, to 135½; 24 per Cent. Consols, 136½, to 136½; 24½ per Cent. Consols, 137½, to 137½; 25 per Cent. Consols, 138½, to 138½; 25½ per Cent. Consols, 139½, to 139½; 26 per Cent. Consols, 140½, to 140½; 26½ per Cent. Consols, 141½, to 141½; 27 per Cent. Consols, 142½, to 142½; 27½ per Cent. Consols, 143½, to 143½; 28 per Cent. Consols, 144½, to 144½; 28½ per Cent. Consols, 145½, to 145½; 29 per Cent. 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Consols, 402½, to 402½; 157½ per Cent. Consols, 403½, to 403½; 158 per Cent. Consols, 404½, to 404½; 158½ per Cent. Consols, 405½, to 405½; 159 per Cent. Consols, 406½, to 406½; 159½ per Cent. Consols, 407½, to 407½; 160 per Cent. Consols, 408½, to 408½; 160½ per Cent. Consols, 409½, to 409½; 161 per Cent. Consols, 410½, to 410½; 161½ per Cent. Consols, 411½, to 411½; 162 per Cent. Consols, 412½, to 412½; 162½ per Cent. Consols, 413½, to 413½; 163 per Cent. Consols, 414½, to 414½; 163½ per Cent. Consols, 415½, to 415½; 164 per Cent. Consols, 416½, to 416½; 164½ per Cent. Consols, 417½, to 417½; 165 per Cent. Consols, 418½, to 418½; 165½ per Cent. Consols, 419½, to 419½; 166 per Cent. Consols, 420½, to 420½; 166½ per Cent. Consols, 421½, to 421½; 167 per Cent. Consols, 422½, to 422½; 167½ per Cent. Consols, 423½, to 423½; 168 per Cent. Consols, 424½, to 424½; 168½ per Cent. Consols, 425½, to 425½; 169 per Cent. Consols, 426½, to 426½; 169½ per Cent. Consols, 427½, to 427½; 170 per Cent. Consols, 428½, to 428½; 170½ per Cent. Consols, 429½, to 429½; 171 per Cent. Consols, 430½, to 430½; 171½ per Cent. Consols, 431½, to 431½; 172 per Cent. Consols, 432½, to 432½; 172½ per Cent. Consols, 433½, to 433½; 173 per Cent. Consols, 434½, to 434½; 173½ per Cent. Consols, 435½, to 435½; 174 per Cent. Consols, 436½, to 436½; 174½ per Cent. Consols, 437½, to 437½; 175 per Cent. Consols, 438½, to 438½; 175½ per Cent. Consols, 439½, to 439½; 176 per Cent. Consols, 440½, to 440½; 176½ per Cent. Consols, 441½, to 441½; 177 per Cent. Consols, 442½, to 442½; 177½ per Cent. Consols, 443½, to 443½; 178 per Cent. Consols, 444½, to 444½; 178½ per Cent. Consols, 445½, to 445½; 179 per Cent. Consols, 446½, to 446½; 179½ per Cent. Consols, 447½, to 447½; 180 per Cent. Consols, 448½, to 448½; 180½ per Cent. Consols, 449½, to 449½; 181 per Cent. Consols, 450½, to 450½; 181½ per Cent. Consols, 451½, to 451½; 182 per Cent. 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